10681457

```
=> d his

     (FILE 'HOME' ENTERED AT 17:57:00 ON 18 OCT 2004)

     FILE 'REGISTRY' ENTERED AT 17:57:17 ON 18 OCT 2004
L1              STRUCTURE UPLOADED
L2            5 S L1
L3           96 S L1 SSS FULL

     FILE 'CAPLUS' ENTERED AT 17:58:08 ON 18 OCT 2004
L4           14 S L3

=> d l1
L1 HAS NO ANSWERS
L1              STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -  AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.
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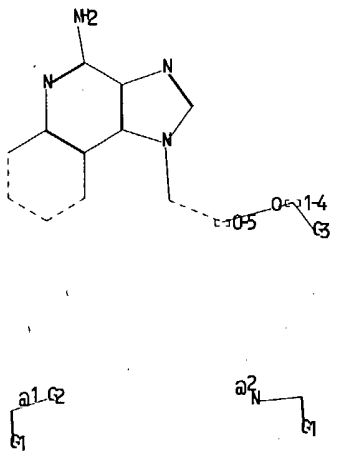
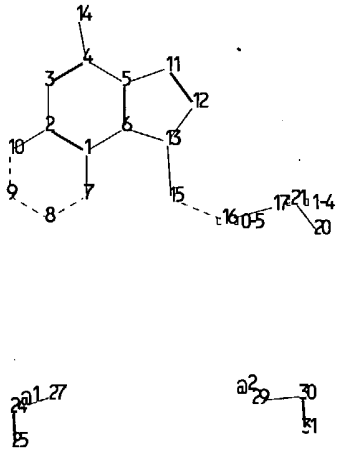
STNEXP4\QUERIES\10681457.str





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ın nodes :
 14   15   16   17   20   21   24   25   27   29   30   31
g nodes :
 1   2   3   4   5   6   7   8   9   10   11   12   13
ın bonds :
 4-14   13-15   15-16   16-17   17-21   20-21   24-25   24-27   29-30   30-31
g bonds :
 1-2   1-6   1-7   2-3   2-10   3-4   4-5   5-6   5-11   6-13   7-8   8-9   9-10   11-12   12-13
ct/norm bonds :
 1-7   2-10   4-14   5-11   6-13   7-8   8-9   9-10   11-12   12-13   13-15   15-16   16-17   17-21
 20-21   24-25   24-27   29-30   30-31
nalized bonds :
 1-2   1-6   2-3   3-4   4-5   5-6


S,O

O,S,N

[*1],[*2]

ch level :
 1:Atom   2:Atom   3:Atom   4:Atom   5:Atom   6:Atom   7:Atom   8:Atom   9:Atom   10:Atom   11:Atom
 12:Atom   13:Atom   14:CLASS   15:CLASS   16:CLASS   17:CLASS   20:CLASS   21:CLASS   24:CLASS
 25:CLASS   27:CLASS   29:CLASS   30:CLASS   31:CLASS
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10681457

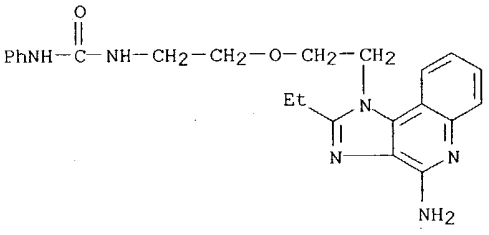
=> d 1-14 bib abs hitstr

L4 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:802451 CAPLUS
TI Selective activation of cellular activities mediated through a common TOLL-like receptor
IN Fink, Jason R.; Gupta, Shalley K.
PA 3M Innovative Properties Company, USA
SO U.S. Pat. Appl. Publ., 14 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

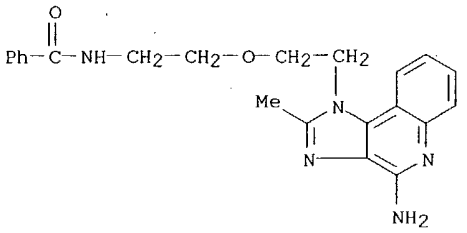
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004191833	A1	20040930	US 2004-807934	20040324
	WO 2004087049	A2	20041014	WO 2004-US8979	20040324

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2003-457336P P 20030325
AB Methods of identifying compds. that selectively modulate cellular activities mediated by a common TLR are provided. Generally, the methods include providing an assay to detect modulation of a first cellular activity mediated by a TLR; providing an assay to detect modulation of a second cellular activity mediated by the TLR; performing each assay using a test compound; and identifying the test compound as a compound that selectively modulates at least one cellular activity of a plurality of activities mediated by a common TLR if the test compound modulates the first cellular activity to a different extent than it modulates the second TLR-mediated cellular activity. Compds. identified by such methods, pharmaceutical compns. including such compds., and methods of treating a condition by administering such pharmaceutical compns. to a subject are also provided.
IT **557787-31-2 608512-33-0**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(selective activation of cellular activities mediated through common TOLL-like receptor)
RN 557787-31-2 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-ethyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-phenyl- (9CI) (CA INDEX NAME)



RN 608512-33-0 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-2-methyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:722830 CAPLUS
DN 141:236623
TI Selective modulation of TLR-mediated biological activity
IN Fink, Jason R.; Gorden, Keith B.; Gorski, Kevin S.; Gupta, Shalley K.; Qiu, Xiaohong; Vasilakos, John P.
PA 3M Innovative Properties Company, USA
SO U.S. Pat. Appl. Publ., 22 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004171086	A1	20040902	US 2004-788731	20040227
WO 2004075865	A2	20040910	WO 2004-US6115	20040227

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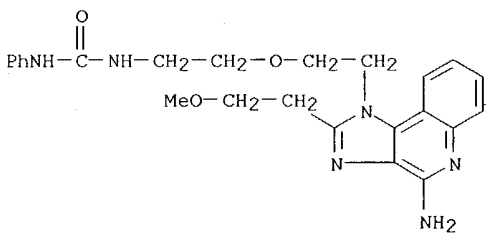
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2003-450484P P 20030227

AB Methods of identifying a compound that selectively modulates at least one TLR-mediated cellular activity are disclosed. Generally, the methods include identifying a compound as a compound that selectively modulates at least one TLR-mediated cellular activity if the compound modulates one TLR-mediated cellular activity to a different extent than it modulates a second TLR-mediated cellular activity. Compds. so identified and pharmaceutical compns. including such compds. are also disclosed. Methods of selectively modulating immune cells and methods of treating certain conditions are also provided. Such methods include administering to cells or a subject a compound that selectively modulates a TLR-mediated cellular activity.

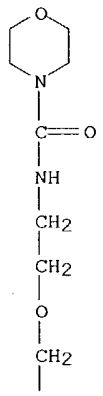
IT **437383-04-5 437383-08-9 557787-31-2 608512-36-3 750596-03-3**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(selective modulation of TLR-mediated biol. activity)

RN 437383-04-5 CAPLUS
CN Urea, N-[2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-N'-phenyl- (9CI) (CA INDEX NAME)



RN 437383-08-9 CAPLUS
CN 4-Morpholinecarboxamide, N-[2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



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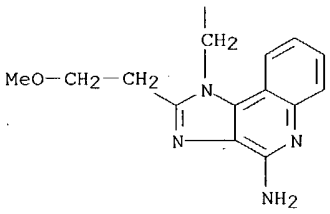
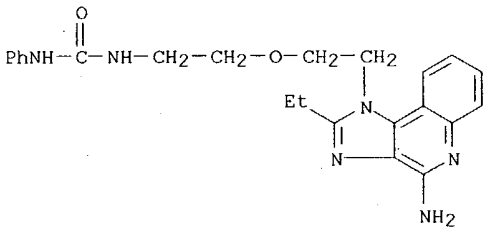
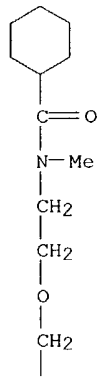


RN 557787-31-2 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-ethyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-phenyl- (9CI) (CA INDEX NAME)



RN 608512-36-3 CAPLUS
CN Cyclohexanecarboxamide, N-[2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-N-methyl- (9CI) (CA INDEX NAME)

PAGE 1-A



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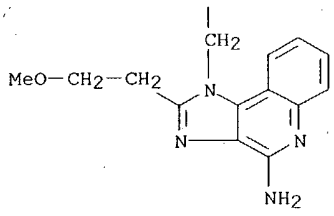
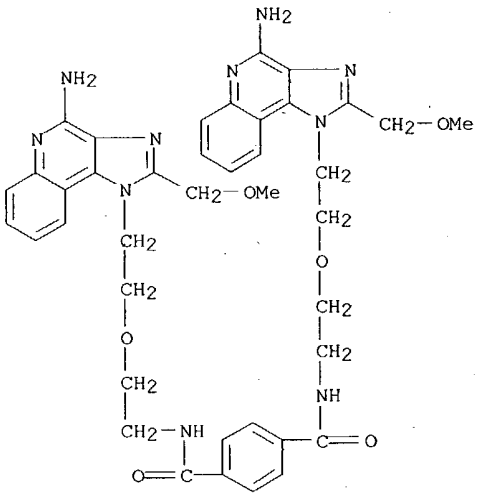


RN 750596-03-3 CAPLUS
CN 1,4-Benzenedicarboxamide, N,N'-bis[2-[2-[4-amino-2-(methoxymethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:681403 CAPLUS

10681457

DN 141:185096
TI Methods and compositions related to IRM compounds and toll-like receptor 8
IN Gorden, Keith B.; Qiu, Xiaohong; Vasilakos, John P.
PA 3M Innovative Properties Company, USA
SO U.S. Pat. Appl. Publ., 25 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2004162309	A1	20040819	US 2004-777310	20040212
WO 2004071459	A2	20040826	WO 2004-US4353	20040212

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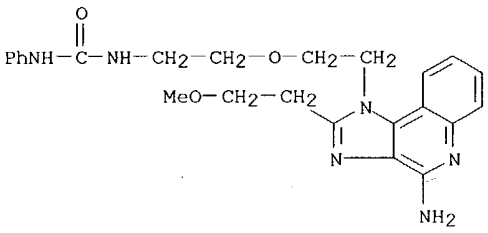
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2003-447179P P 20030213

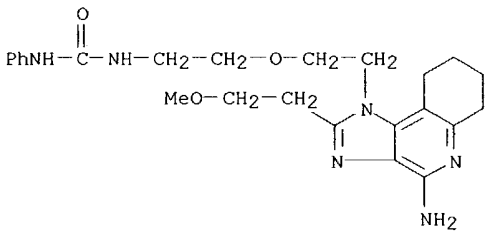
AB Methods of eliciting a toll-like receptor 8 (TLR8)-mediated cellular response are disclosed. Such methods include administration of either a TLR8 agonist or a TLR8 antagonist to an IRM (immune response modifier)-responsive cell so that the IRM compound affects at least one TLR8-mediate cellular signaling pathway. In some cases, the method may provide prophylactic or therapeutic treatment for a condition treatable by modulating a TLR8-mediated cellular pathway.

IT **437383-04-5 437383-05-6 557787-35-6**
557787-36-7
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(methods and compns. related to immune response modifier compds. and affecting toll-like receptor 8-mediated cellular response for therapeutic treatments)

RN 437383-04-5 CAPLUS
CN Urea, N-[2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-N'-phenyl- (9CI) (CA INDEX NAME)



RN 437383-05-6 CAPLUS
CN Urea, N-[2-[2-[4-amino-6,7,8,9-tetrahydro-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-N'-phenyl- (9CI) (CA INDEX NAME)



RN 557787-35-6 CAPLUS
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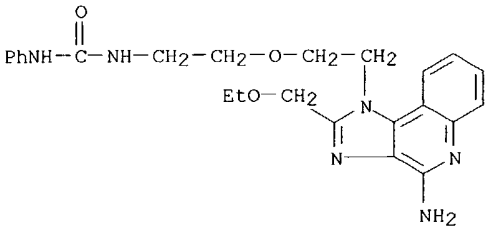
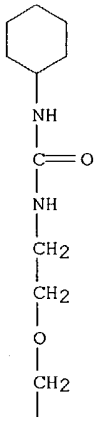
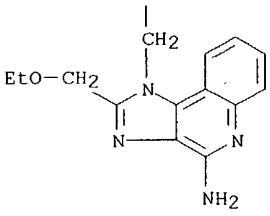


RN 557787-36-7 CAPLUS
CN Urea, N-[2-[2-[4-amino-2-(ethoxymethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-N'-cyclohexyl- (9CI) (CA INDEX NAME)





L4 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:589386 CAPLUS
DN 141:139130
TI Vaccines comprising TLR agonist, TNF/TNF receptor agonist and antigen for inducing cellular immune response against infection or tumor
IN Noelle, Randolph J.; Ahonen, Cory L.; Kedl, Ross M.
PA 3M Innovative Properties Company, USA
SO PCT Int. Appl., 48 pp.

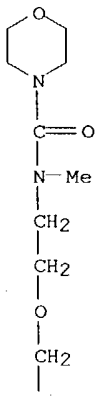
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

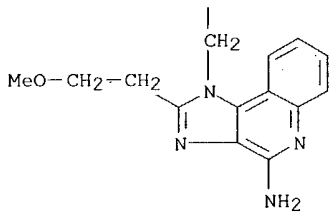
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004060319	A2	20040722	WO 2003-US41796	20031230
W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, EE, EG, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004141950	A1	20040722	US 2003-748010	20031230
PRAI US 2002-437398P	P	20021230		

AB The present invention provides immunostimulatory combinations. Generally, the immunostimulatory combinations include a TLR agonist, a TNF or TNF receptor agonist and an tumor antigen or viral, bacterial or parasitic antigen. The TLR agonist is an agonist of TLR1-10 e.g. IRM compound, MALP-2, LPS, polyIC, CpG or any combination. The TNF agonist is an agonist or antibody against CD40L, OX40 ligand, 4-1BB ligand, CD27, CD30 ligand, TNF-α, TNF-β, RANK ligand, LT-α, LT-β, GITR ligand or LIGHT. The TNF receptor agonist is an antibody or agonist of CD40, OX40, 4-1BB, CD27 ligand, CD30, TNFR2, RANK, LT-αR, LT-βR, HVEM, GITR, TROY or RELT. These immunostimulatory combinations are useful for inducing Th1 immune response or antigen-specific CD8+ effector and memory T cell response against infectious and neoplastic conditions.

IT **437383-09-0**
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(vaccines comprising TLR agonist, TNF/TNFR agonist and antigen for inducing cellular immune response against infection or tumor)

RN 437383-09-0 CAPLUS
CN 4-Morpholinecarboxamide, N-[2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-N-methyl- (9CI) (CA INDEX NAME)





L4 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:331904 CAPLUS
DN 140:350563
TI Immune response modifier-antigen immunostimulatory compositions and methods of stimulating an immune response
IN Kedl, Ross M.; Griesgraber, George W.; Zarraga, Isidro Angelo E.
PA 3M Innovative Properties Company, USA
SO PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004032829	A2	20040422	WO 2003-US25523	20030814
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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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	US 2004202720	A1	20041014	US 2004-821319	20040409
PRAI	US 2002-403846P	P	20020815		
	US 2003-462140P	P	20030410		
	US 2003-640904	A2	20030814		
	US 2003-515256P	P	20031029		
	US 2004-545424P	P	20040218		
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OS MARPAT 140:350563
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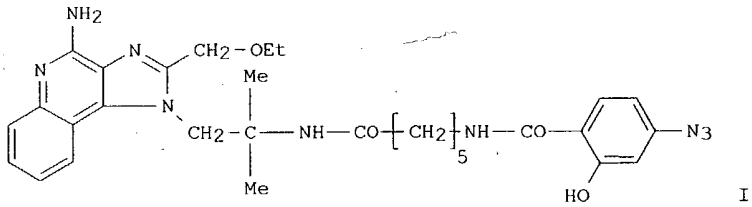


I

AB The invention provides immunostimulatory compns. that include an immune response modifier (IRM) portion (e.g. an imidazoquinoline derivative) paired with an antigenic portion (e.g. ovalbumin). Preparation of IRM derivs., e.g. I, is included.

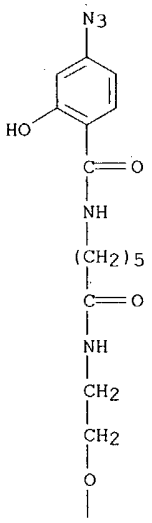
IT **680987-05-7P 680987-06-8P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(immune response modifier-antigen immunostimulatory compns., preparation,

and methods use)

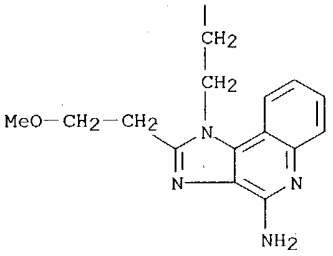
RN 680987-05-7 CAPLUS

CN Benzamide, N-[6-[[2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]amino]-6-oxohexyl]-4-azido-2-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A

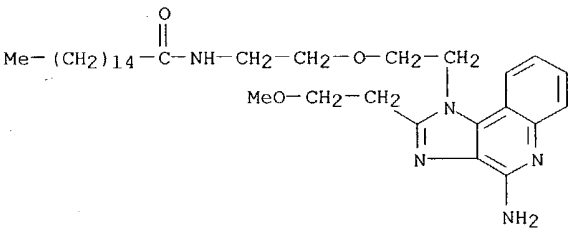


PAGE 2-A



RN 680987-06-8 CAPLUS

CN Hexadecanamide, N-[2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]- (9CI) (CA INDEX NAME)



IT **436856-98-3P**

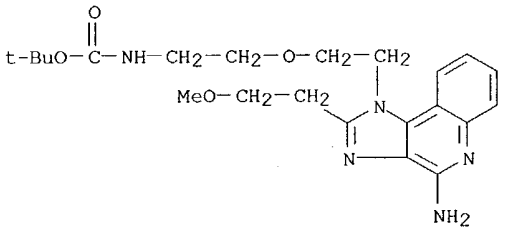
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(immune response modifier-antigen immunostimulatory compns., preparation, and methods use)

RN 436856-98-3 CAPLUS

10681457

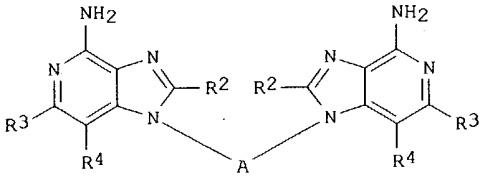
CN Carbamic acid, [2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:291951 CAPLUS
DN 140:321358
TI Preparation of imidazo[4,5-c]quinoline dimers as immune response modifiers
IN Griesgraber, George W.
PA 3M Innovative Properties Company, USA
SO PCT Int. Appl., 71 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004028539	A2	20040408	WO 2003-US30372	20030925
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2004132766	A1	20040708	US 2003-670957	20030925
PRAI	US 2002-413848P	P	20020926		

OS MARPAT 140:321358
GI



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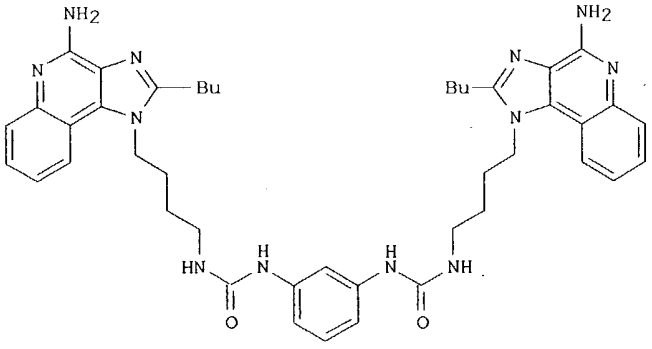


II

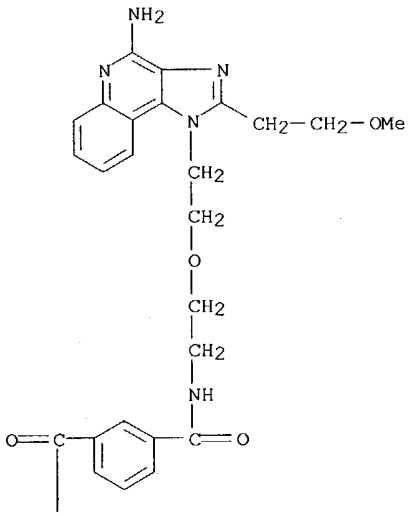
AB Title compds. I [wherein R2 = H, (un)substituted alkyl, alkenyl, (hetero)aryl, etc.; R3, R4 = independently H, halo, alkyloxy, alkenyl, alkylthio, amino, or R3R4 = (un)substituted (hetero)aryl ring; A = alkylene, alkenylene, alkynylene, etc.; and pharmaceutically acceptable salts thereof], and analogs (4 addnl. Markush structures), were prepared as immune response modifiers. For example, reaction of 1-(4-aminobutyl)-2-butyl-1H-imidazo[4,5-c]quinolin-4-amine with 1,3-phenylene diisocyanate in CH2Cl2 under N2 at r.t., gave II as a white solid. II stimulated interferon α and tumor necrosis factor (TNF-α) biosynthesis in human blood cell at concentration of less than or equal to 10 μM. Thus, I and their pharmaceutical compns. induce cytokines biosynthesis and are useful in the treatment of a variety of conditions including viral diseases and neoplastic diseases.

IT **677354-10-8P 677354-11-9P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of imidazo[4,5-c]quinoline dimers as immune response modifiers)

RN 677354-10-8 CAPLUS

CN 1,3-Benzenedicarboxamide, N,N'-bis[2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



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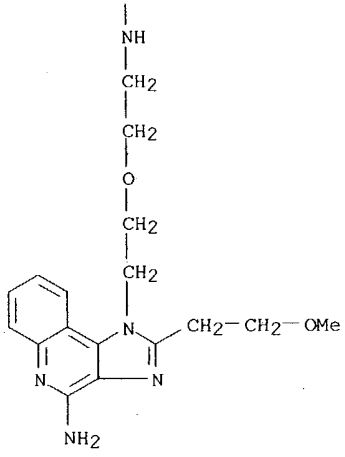
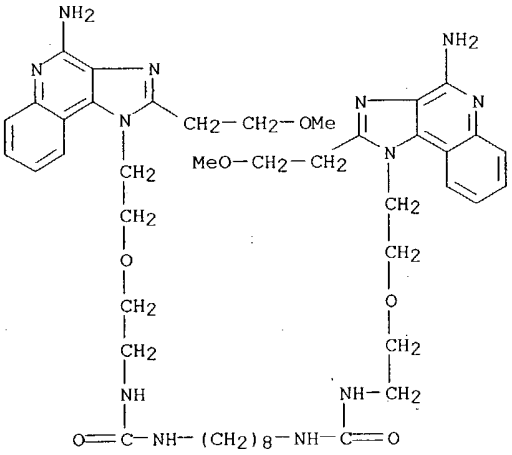


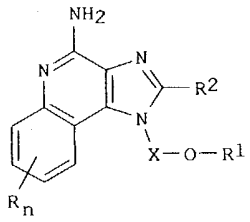
RN 677354-11-9 CAPLUS
CN 16-Oxa-2,11,13-triazaoctadecanamide, 18-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]-N-[2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-12-oxo- (9CI) (CA INDEX NAME)



L4 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:892446 CAPLUS
DN 139:364934
TI Preparation of aryl ether substituted imidazoquinolines as immune response modifiers
IN Heppner, Philip D.; Charles, Leslie J.; Dellaria, Joseph F.; Merrill, Bryon A.; Mickelson, John W.
PA 3M Innovative Properties Co., USA
SO U.S. Pat. Appl. Publ., 97 pp., Cont.-in-part of U.S. Ser. No. 13,202.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 11

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003212092	A1	20031113	US 2002-165750	20020607
	US 6677348	B2	20040113		
	US 2003212091	A1	20031113	US 2001-13202	20011206
	US 6670372	B2	20031230		
	US 2004072858	A1	20040415	US 2003-675833	20030930
	US 2004106640	A1	20040603	US 2003-696753	20031029
	US 2004138248	A1	20040715	US 2003-696108	20031029
PRAI	US 2000-254218P	P	20001208		
	US 2001-13202	A2	20011206		
	US 2001-11921	A1	20011206		
	US 2002-165750	A1	20020607		

OS MARPAT 139:364934
GI



I

AB The title compds. [I; X = (CH2)2, CHEtCH2, etc.; R1 = alkenyl, aryl, R4-aryl; R2 = H, alkyl, alkenyl, etc.; R4 = alkyl, alkenyl which may be interrupted by one or more O atoms; R3 = H, alkyl; n = 0-4; R = alkyl, alkoxy, OH, etc.] that contain ether and aryl or alkenyl functionality at the 1-position, and are useful as immune response modifiers, were prepared E.g., a multi-step synthesis of I [X = (CH2)2; R1 = CH2C.tplbond.CH; R2 = H; n = 0] which showed the lowest effective concentration of 0.12 μM and 1.11 μM to induce biosynthesis of interferon α and TNFα in human cells, resp., was given. The compds. I can induce the biosynthesis of various cytokines and are useful in the treatment of a variety of conditions including viral diseases and neoplastic diseases. The pharmaceutical composition comprising the compound I is claimed.

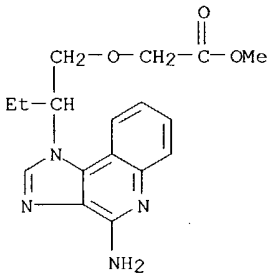
IT **437601-48-4P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of aryl ether substituted imidazoquinolines as immune response modifiers)

RN 437601-48-4 CAPLUS

CN Acetic acid, [2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)butoxy]-, methyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

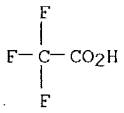
CM 1

CRN 436855-99-1
CMF C17 H20 N4 O3



CM 2

CRN 76-05-1
CMF C2 H F3 O2



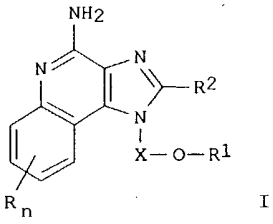
L4 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:777397 CAPLUS
DN 139:292250
TI Preparation of amido ether substituted imidazoquinolines as immune response modifiers
IN Crooks, Stephen L.; Griesgraber, George W.; Heppner, Philip D.; Merrill, Bryon A.
PA 3M Innovative Properties Co., USA
SO U.S. Pat. Appl. Publ., 50 pp., Cont.-in-part of U.S. Ser. No. 11,670.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 11

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003187016	A1	20031002	US 2002-165449	20020607

	US 6664265	B2	20031216		
	US 2003096835	A1	20030522	US 2001-11670	20011206
	US 6660747	B2	20031209		
	US 2004072858	A1	20040415	US 2003-675833	20030930
	US 2004067975	A1	20040408	US 2003-681711	20031007
	US 2004157874	A1	20040812	US 2003-681457	20031007
PRAI	US 2000-254218P	P	20001208		
	US 2001-11670	A2	20011206		
	US 2001-11921	A1	20011206		
	US 2002-165449	A1	20020607		

OS MARPAT 139:292250

GI



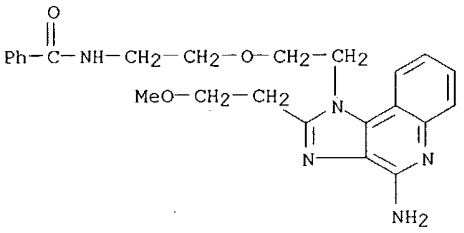
I

AB The title compds. [I; X = (CH2)2, CH(Et)CH2, etc.; R1 = (CH2)4CONMePh, (CH2)2NHCO(cyclohexyl), (CH2)2NHCO(1-naphthyl), etc.; R2 = H, alkyl, alkenyl, etc.; R = alkyl, alkoxy, OH, halo, CF3; n = 0-4] and their pharmaceutically acceptable salts that contain ether and amide functionality at the 1-position, and are useful as immune response modifiers, were prepared Thus, reacting 2-(1H-imidazo[4,5-c]quinolin-1-yl)ethanol with 5-bromo-N-methyl-N-phenylpentamide followed by treatment of the resulting N-oxide with trichloroacetyl isocyanate in CH2Cl2, and then treating the intermediate with NaOMe in MeOH afforded I [X = (CH2)2; R1 = (CH2)4CONMePh; R2 = H; n = 0] which showed interferon α induction in human cells at 3.33 μM. The compds. I and compns. comprising I can induce the biosynthesis of various cytokines, and are useful in the treatment of a variety of conditions, including viral diseases and neoplastic diseases.

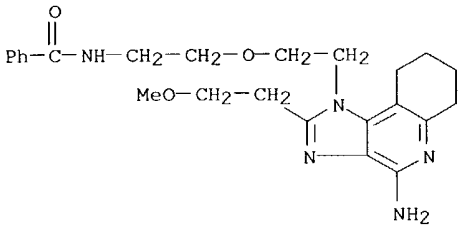
IT **436855-82-2P 436855-84-4P 436855-87-7P**
436855-91-3P 436855-95-7P 436855-97-9P
436855-99-1P 436856-00-7P 436856-01-8P
436856-02-9P 436856-03-0P 436856-04-1P
436856-05-2P 436856-06-3P 436856-07-4P
436856-08-5P 436856-09-6P 436856-10-9P
436856-11-0P 436856-12-1P 436856-13-2P
436856-14-3P 436856-15-4P 436856-16-5P
436856-17-6P 436856-18-7P 436856-19-8P
436856-42-7P 436856-44-9P 436856-46-1P
436856-48-3P 436856-50-7P 436856-52-9P
436856-54-1P 436856-56-3P 436856-58-5P
436856-60-9P 436856-62-1P 436856-64-3P
436856-66-5P 436856-68-7P 436856-70-1P
608512-33-0P 608512-34-1P 608512-35-2P
608512-36-3P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of amido ether substituted imidazoquinolines as immune response modifiers)

RN 436855-82-2 CAPLUS

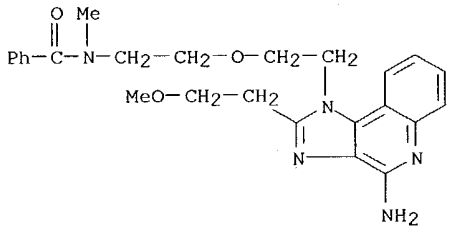
CN Benzamide, N-[2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]- (9CI) (CA INDEX NAME)



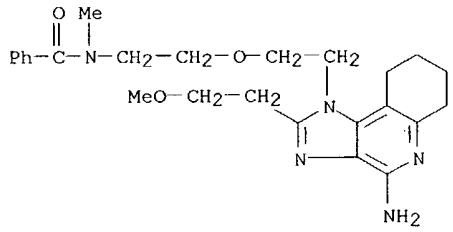
RN 436855-84-4 CAPLUS
CN Benzamide, N-[2-[2-[4-amino-6,7,8,9-tetrahydro-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]- (9CI) (CA INDEX NAME)



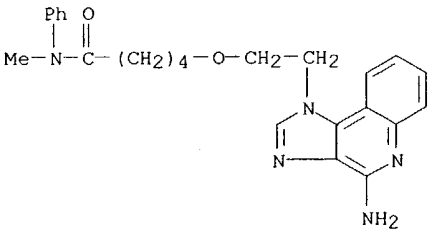
RN 436855-87-7 CAPLUS
CN Benzamide, N-[2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-N-methyl- (9CI) (CA INDEX NAME)



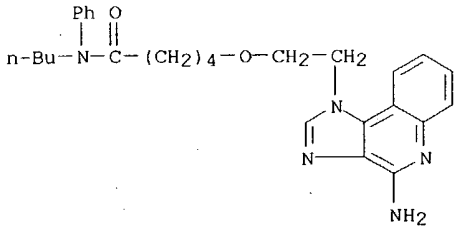
RN 436855-91-3 CAPLUS
CN Benzamide, N-[2-[2-[4-amino-6,7,8,9-tetrahydro-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-N-methyl- (9CI) (CA INDEX NAME)



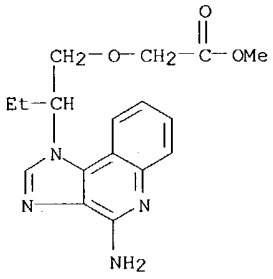
RN 436855-95-7 CAPLUS
CN Pentanamide, 5-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]-N-methyl-N-phenyl- (9CI) (CA INDEX NAME)



RN 436855-97-9 CAPLUS
CN Pentanamide, 5-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]-N-butyl-N-phenyl- (9CI) (CA INDEX NAME)

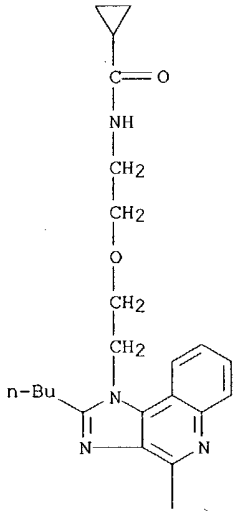


RN 436855-99-1 CAPLUS
CN Acetic acid, [2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)butoxy]-, methyl ester (9CI) (CA INDEX NAME)



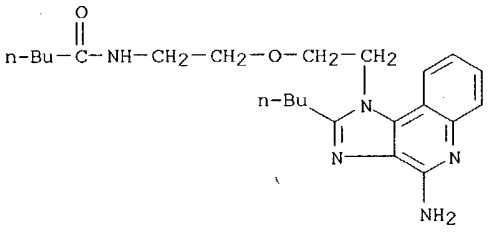
RN 436856-00-7 CAPLUS
CN Cyclopropanecarboxamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



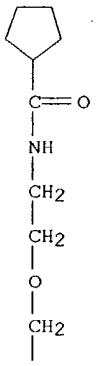
PAGE 2-A

RN 436856-01-8 CAPLUS
CN Pentanamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)

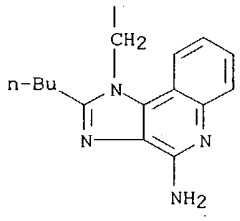


RN 436856-02-9 CAPLUS
CN Cyclopentanecarboxamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)

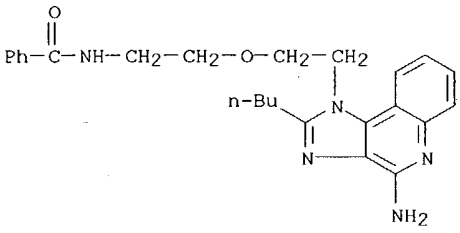
PAGE 1-A



PAGE 2-A

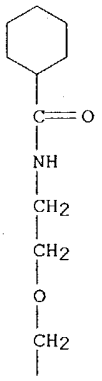


RN 436856-03-0 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)

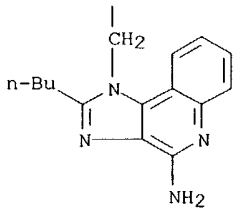


RN 436856-04-1 CAPLUS
CN Cyclohexanecarboxamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)

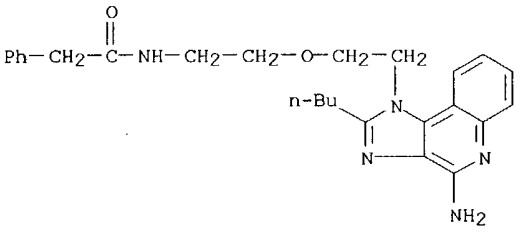
PAGE 1-A



PAGE 2-A

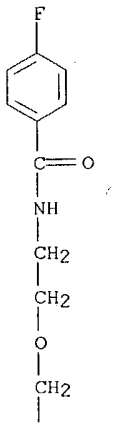


RN 436856-05-2 CAPLUS
CN Benzeneacetamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)



RN 436856-06-3 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-4-fluoro- (9CI) (CA INDEX NAME)

PAGE 1-A



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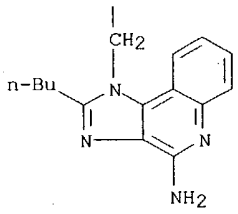

RN 436856-07-4 CAPLUS
CN 2-Thiopheneacetamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)

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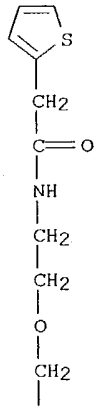

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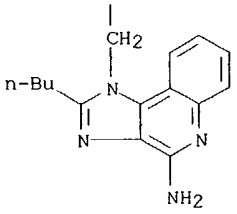
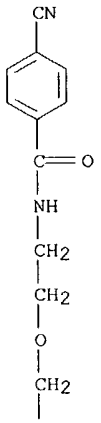


RN 436856-08-5 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-4-cyano- (9CI) (CA INDEX NAME)

PAGE 1-A



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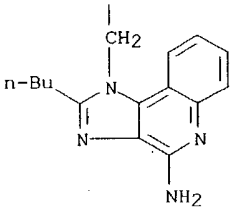

RN 436856-09-6 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-3-cyano- (9CI) (CA INDEX NAME)

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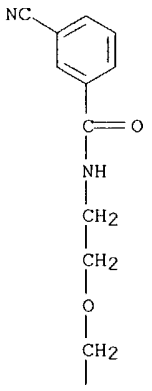

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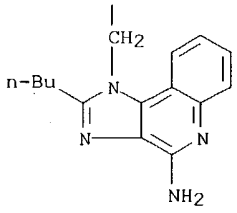
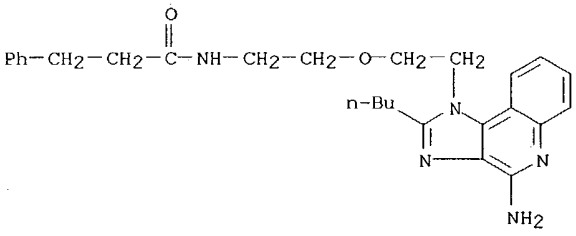


RN 436856-10-9 CAPLUS
CN Benzenepropanamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)



RN 436856-11-0 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-3-methoxy- (9CI) (CA INDEX NAME)

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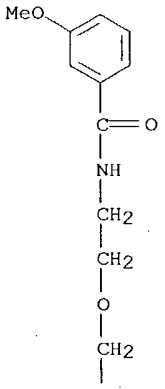

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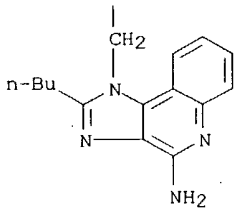

RN 436856-12-1 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-4-methoxy- (9CI) (CA INDEX NAME)

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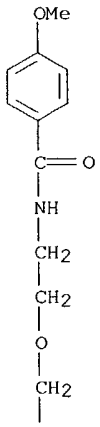

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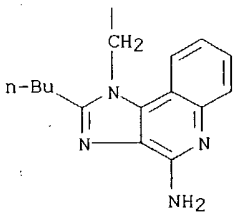

RN 436856-13-2 CAPLUS
CN 3-Pyridinecarboxamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-6-chloro- (9CI) (CA INDEX NAME)

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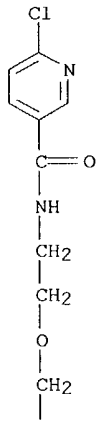

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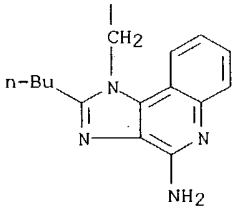
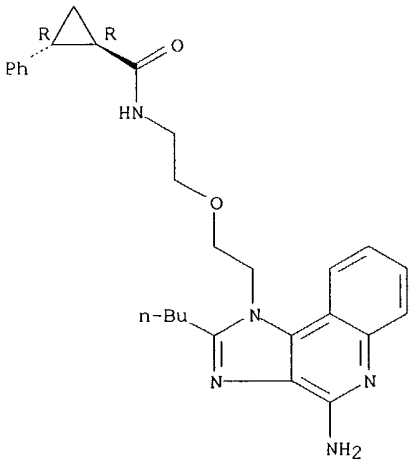
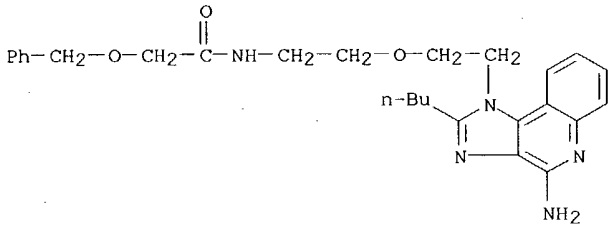


RN 436856-14-3 CAPLUS
CN Cyclopropanecarboxamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-2-phenyl-, (1R,2R)-rel- (9CI) (CA INDEX NAME)

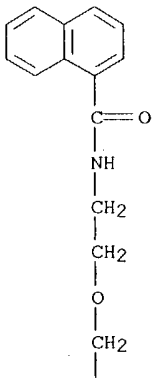
Relative stereochemistry.



RN 436856-15-4 CAPLUS
CN Acetamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-2-(phenylmethoxy)- (9CI) (CA INDEX NAME)



RN 436856-16-5 CAPLUS
CN 1-Naphthalenecarboxamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)



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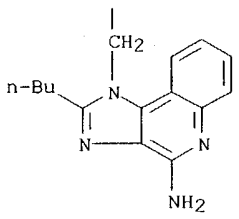

RN 436856-17-6 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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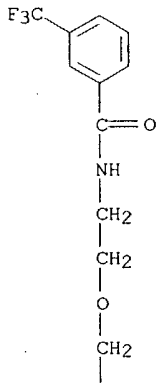

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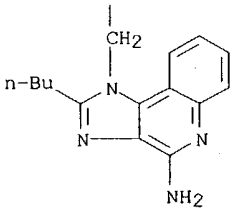

RN 436856-18-7 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-4-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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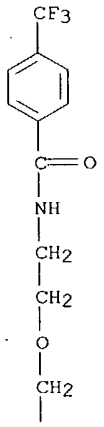

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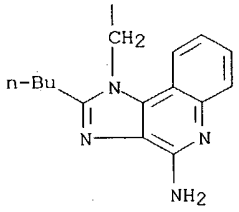

RN 436856-19-8 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-4-(trifluoromethoxy)- (9CI) (CA INDEX NAME)

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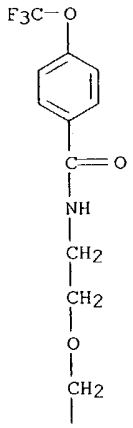
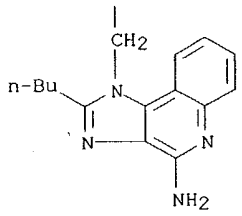
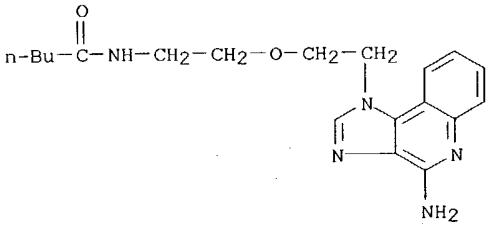
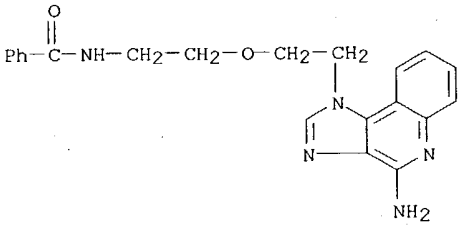




RN 436856-42-7 CAPLUS
CN Pentanamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)



RN 436856-44-9 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)



RN 436856-46-1 CAPLUS
CN Cyclohexanecarboxamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)

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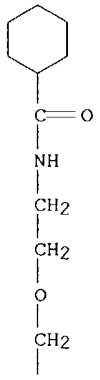

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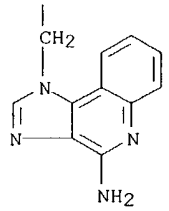
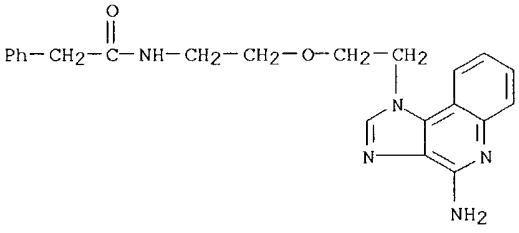


RN 436856-48-3 CAPLUS
CN Benzeneacetamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)



RN 436856-50-7 CAPLUS
CN 2-Thiopheneacetamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)

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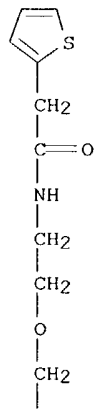

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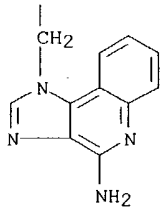

RN 436856-52-9 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-4-cyano- (9CI) (CA INDEX NAME)

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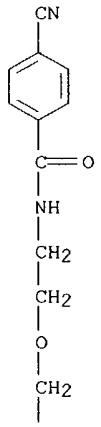

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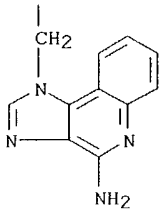
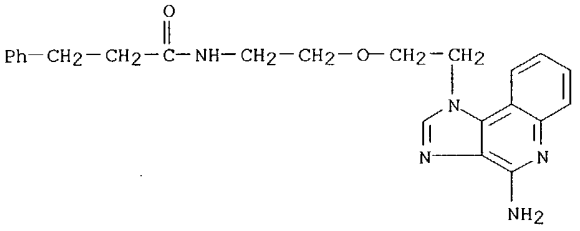


RN 436856-54-1 CAPLUS
CN Benzenepropanamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)



RN 436856-56-3 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-3-methoxy- (9CI) (CA INDEX NAME)

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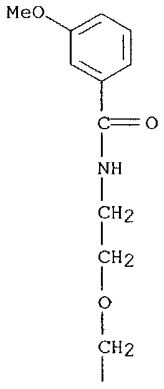

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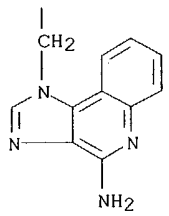

RN 436856-58-5 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-4-methoxy- (9CI) (CA INDEX NAME)

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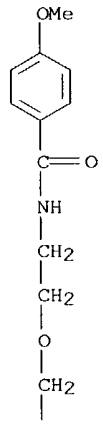

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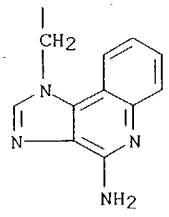

RN 436856-60-9 CAPLUS
CN 3-Pyridinecarboxamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-6-chloro- (9CI) (CA INDEX NAME)

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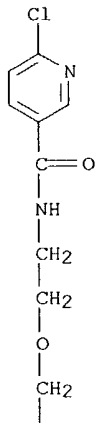

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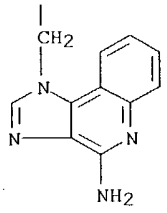
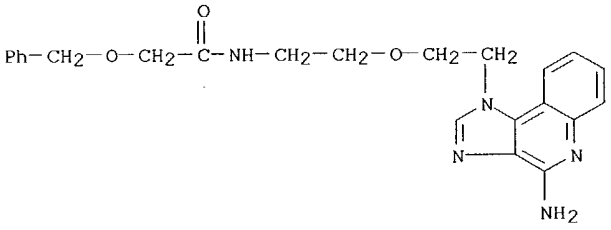
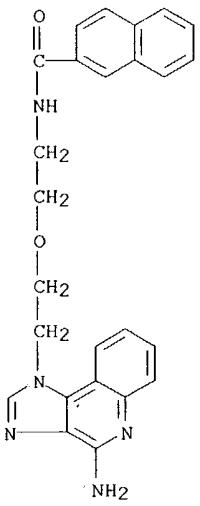


RN 436856-62-1 CAPLUS
CN Acetamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-2-(phenylmethoxy)- (9CI) (CA INDEX NAME)



RN 436856-64-3 CAPLUS
CN 2-Naphthalenecarboxamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)



RN 436856-66-5 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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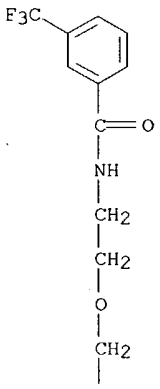

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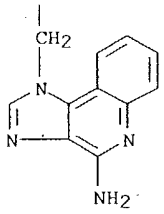

RN 436856-68-7 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-4-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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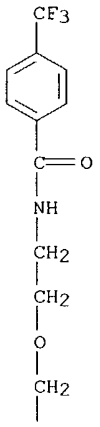

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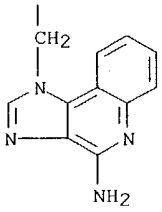
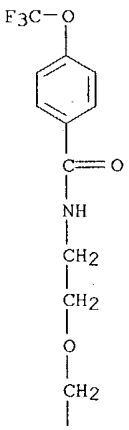
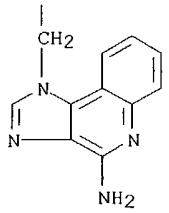


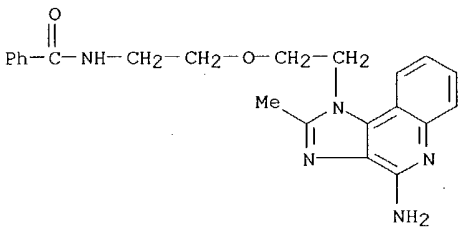
RN 436856-70-1 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-4-(trifluoromethoxy)- (9CI) (CA INDEX NAME)

PAGE 1-A

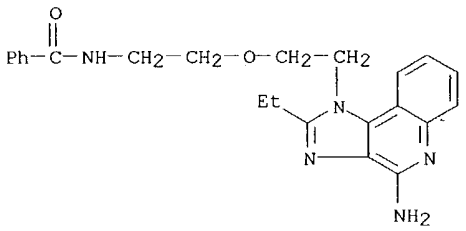




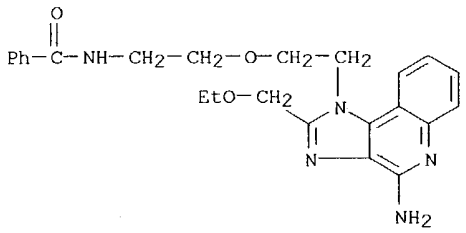
RN 608512-33-0 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-2-methyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)



RN 608512-34-1 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-2-ethyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)

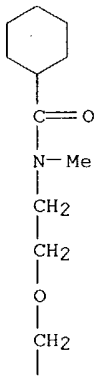


RN 608512-35-2 CAPLUS
CN Benzamide, N-[2-[2-[4-amino-2-(ethoxymethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]- (9CI) (CA INDEX NAME)

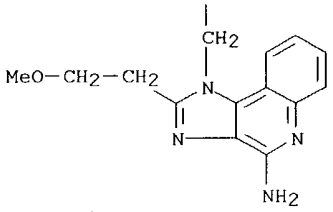


RN 608512-36-3 CAPLUS
CN Cyclohexanecarboxamide, N-[2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-N-methyl- (9CI) (CA INDEX NAME)

PAGE 1-A

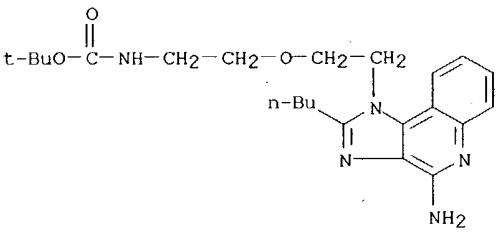


PAGE 2-A

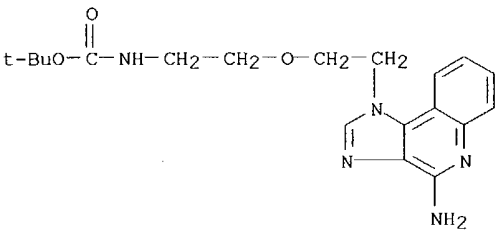


IT **436856-84-7P 436856-92-7P 436856-98-3P**
436857-12-4P 557787-40-3P 557787-44-7P
557787-47-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of amido ether substituted imidazoquinolines as immune response modifiers)

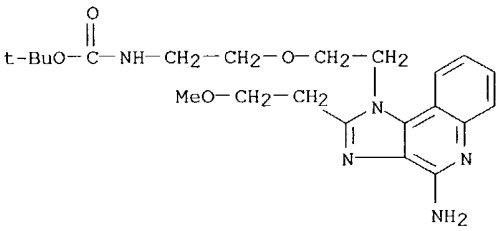
RN 436856-84-7 CAPLUS
CN Carbamic acid, [2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



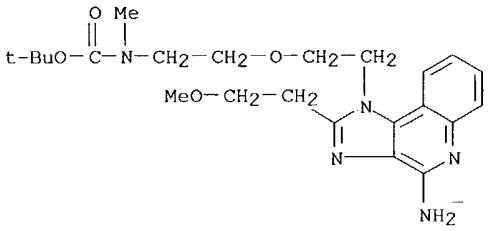
RN 436856-92-7 CAPLUS
CN Carbamic acid, [2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



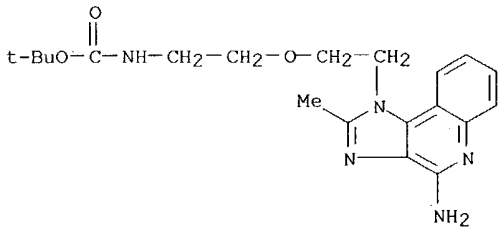
RN 436856-98-3 CAPLUS
CN Carbamic acid, [2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



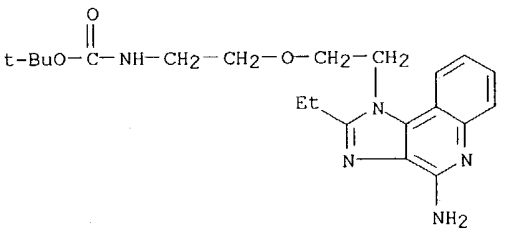
RN 436857-12-4 CAPLUS
CN Carbamic acid, [2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]methyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



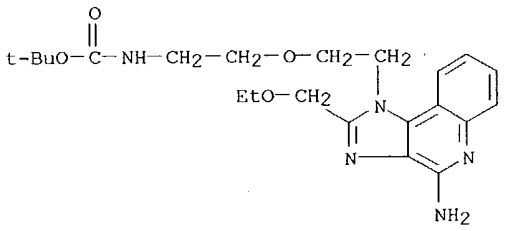
RN 557787-40-3 CAPLUS
CN Carbamic acid, [2-[2-(4-amino-2-methyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 557787-44-7 CAPLUS
CN Carbamic acid, [2-[2-(4-amino-2-ethyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 557787-47-0 CAPLUS
CN Carbamic acid, [2-[2-[4-amino-2-(ethoxymethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:570648 CAPLUS
DN 139:133563
TI Preparation of sulfonamidoalkoxyalkylimidazoquinolines as immune response modulators.
IN Crooks, Stephen L.; Griesgraber, George W.; Heppner, Philip D.; Merrill, Bryon A.; Roberts, Ralph R.; Wei, Ai-Ping
PA 3M Innovative Properties Co., USA
SO U.S. Pat. Appl. Publ., 46 pp., Cont.-in-part of U.S. Ser. No. 12,599.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 11

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003139441	A1	20030724	US 2002-165443	20020607
	US 6677347	B2	20040113		
	US 2002193396	A1	20021219	US 2001-12599	20011206
	US 6683088	B2	20040127		
	US 2004072858	A1	20040415	US 2003-675833	20030930
	US 2004092545	A1	20040513	US 2003-696476	20031029
	US 2004097542	A1	20040520	US 2003-696478	20031029
PRAI	US 2000-254218P	P	20001208		
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	US 2001-11921	A1	20011206		
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OS MARPAT 139:133563
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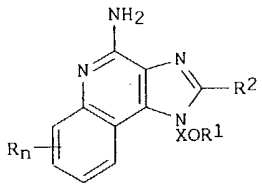


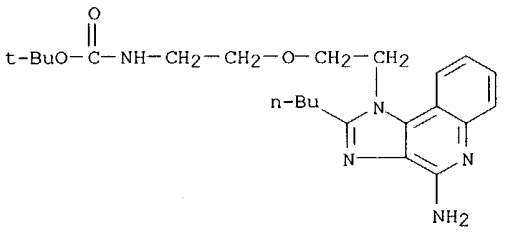
I

AB Title compds. [I; X = CHR5, CHR5, CHR5, R1 = R4NR3SO2R6A, R4NR3SOR7, R4NR3SO2NR5R6A, R4NR3SO2NH2; A = alkyl, alkenyl, aryl, heteroaryl,

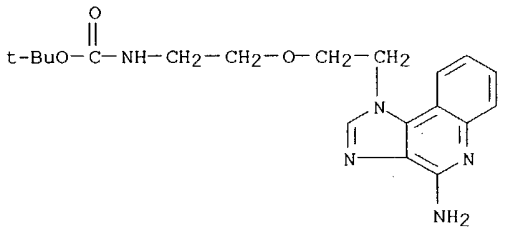
heterocyclyl; R2 = H, (substituted) alkyl, alkenyl, aryl, heteroaryl, heterocyclyl, alkyl-Y-alkyl, alkyl-Y-alkenyl, alkyl-Y-aryl; Y = O, S(O)0-2; R3 = H, alkyl, arylalkyl; R4 = alkyl, alkenyl, which may be interrupted by ≥1 O; R3R4 form a ring; R5 = H, alkyl, alkenyl; R6 = bond, alkyl, alkenyl, which may be interrupted by ≥1 O; R7 = alkyl; R3R7 form a ring; n = 0-4; R = alkyl, alkoxy, OH, halo, CF3], were prepared Thus, tert-Bu 2-[2-[(3-aminoquinolin-4-yl)amino]ethoxy]ethylcarbamate (preparation given) in CH2Cl2 was cooled to 0° and treated with Et3N and methoxypropionyl chloride; The reaction was then warmed to room temperature and stirring was continued for 1 h to give tert-Bu 2-[2-[2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethylcarbamate. This was converted to N-[2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]methanesulfonamide in several steps. I showed interferon induction in human cells with lowest effective concns. of 0.0001-1 μM.

IT **436856-84-7P 436856-92-7P**, tert-Butyl [2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]carbamate **436856-98-3P 436857-12-4P 557787-40-3P**, tert-Butyl [2-[2-(4-amino-2-methyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]carbamate **557787-44-7P**, tert-Butyl [2-[2-(4-amino-2-ethyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]carbamate **557787-47-0P**, tert-Butyl [2-[2-(4-amino-2-(ethoxymethyl)-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]carbamate
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of sulfonamidoalkoxyalkylimidazoquinolines as immune response modulators)

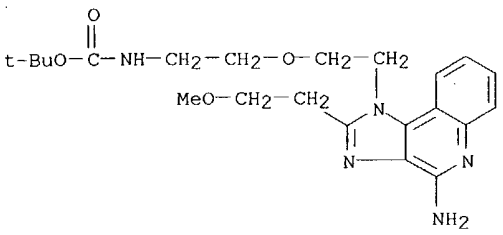
RN 436856-84-7 CAPLUS
CN Carbamic acid, [2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



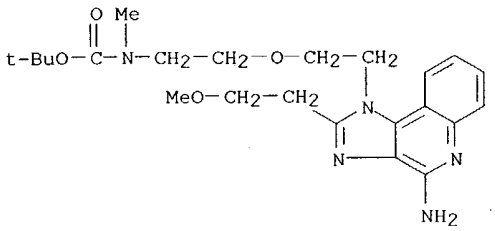
RN 436856-92-7 CAPLUS
CN Carbamic acid, [2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



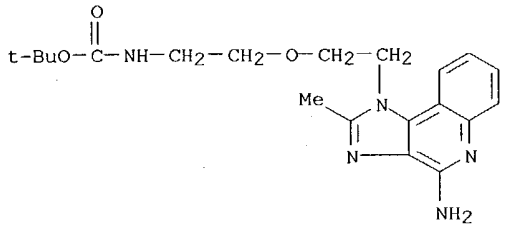
RN 436856-98-3 CAPLUS
CN Carbamic acid, [2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



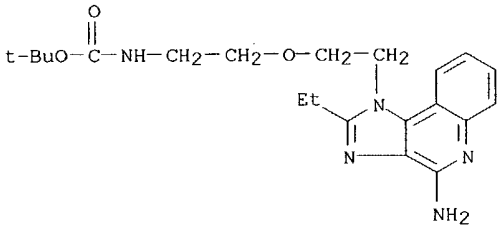
RN 436857-12-4 CAPLUS
CN Carbamic acid, [2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]methyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



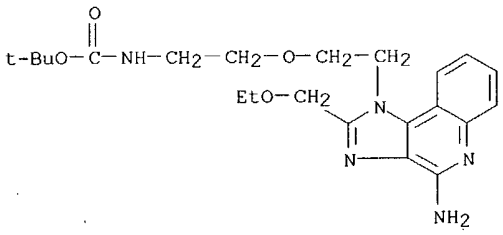
RN 557787-40-3 CAPLUS
CN Carbamic acid, [2-[2-(4-amino-2-methyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 557787-44-7 CAPLUS
CN Carbamic acid, [2-[2-(4-amino-2-ethyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 557787-47-0 CAPLUS
CN Carbamic acid, [2-[2-[4-amino-2-(ethoxymethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:532388 CAPLUS
DN 139:101126
TI Preparation of 4-amino-1-(ureidoethoxyethyl)imidazoquinolines as inducers of cytokine biosynthesis for treatment of viral and neoplastic disease.
IN Crooks, Stephen L.; Griesgraber, George W.; Heppner, Philip D.; Merrill, Bryon A.
PA 3M Innovative Properties Co., USA
SO U.S. Pat. Appl. Publ., 43 pp., Cont.-in-part of U.S. Ser. No. 13,060.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 11

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003130518	A1	20030710	US 2002-164816	20020607
	US 6660735	B2	20031209		
	US 2003158192	A1	20030821	US 2001-13060	20011206
	US 6656938	B2	20031202		
	US 2004072858	A1	20040415	US 2003-675833	20030930
	US 2004072859	A1	20040415	US 2003-681814	20031007
	US 2004077678	A1	20040422	US 2003-680989	20031007
PRAI	US 2000-254218P	P	20001208		
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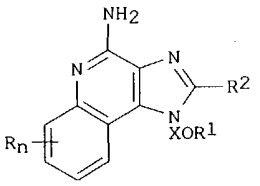
	US 2001-11921	A1	20011206		
	US 2002-164816	A1	20020607		

OS MARPAT 139:101126
GI



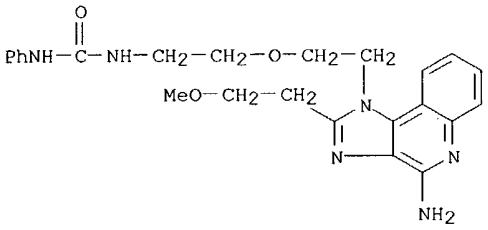
I

AB Title compds. [I; X = CHR5, CHR5A; A = alkylene, alkenylene; R1 = R4NR8CR3NR5ZR6A1, R4NR8CR3NR5R7, R4NR8CR3NR9ZR6A1; A1 = alkyl, alkenyl, aryl, heteroaryl, heterocyclyl; R2 = H, alkyl, alkenyl, aryl, heteroaryl, heterocyclyl, alkyl-Y-alkyl, alkyl-Y-alkenyl, alkyl-Y-aryl, alkyl, alkenyl substituted by ≥1 of: OH, halo, N(R5)2, CON(R5)2, CO-C1-10 alkyl, CO2-C1-10 alkyl, N3, aryl, heteroaryl, heterocyclyl, CO-aryl, CO-heteroaryl; R3 = O, S; R4 = alkyl, alkenyl, which may be interrupted by ≥1 O; R5 = H, C1-10 alkyl; R6 = bond, alkyl, alkenyl, which may be interrupted by ≥1 O; R7 = H, C1-10 alkyl which may be interrupted by a heteroatom; R7R5 = atoms to form a ring; R8 = H, C1-10 alkyl, arylalkyl; R4R8 = atoms to form a ring; R9 = C1-10 alkyl which can join together with R8 to form a ring; Y = O, S, SO, SO2; Z = bond, CO, SO2; n = 0-4; R = C1-10 alkyl, C1-10 alkoxy, OH, halo, CF3], were prepared Thus, title compound I (R1 = morpholinocarbonylaminoethyl; X = CH2CH2; R2 = Bu; R = null) (general preparation given) induced interferon and tumor necrosis factor in human cells at lowest effective concns. of 0.0001 μM and 0.1 μM, resp.

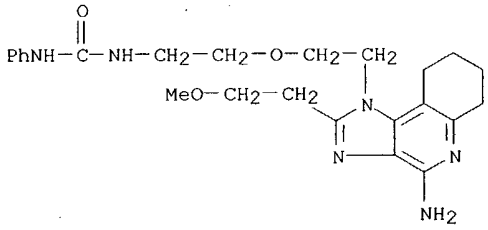
IT **437383-04-5P**, N-[2-[2-[4-Amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-N'-phenylurea **437383-05-6P**, N-[2-[2-[4-Amino-2-(2-methoxyethyl)-6,7,8,9-tetrahydro-1H-imidazo[4,5-

c]quinolin-1-yl]ethoxy]ethyl]-N'-phenylurea **437383-06-7P**,
N-[2-[2-[4-Amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-N-methyl-N'-phenylurea **437383-07-8P**,
N-[2-[2-[4-Amino-2-(2-methoxyethyl)-6,7,8,9-tetrahydro-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-N-methyl-N'-phenylurea **437383-08-9P**
, N-[2-[2-[4-Amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]morpholine-4-carboxamide **437383-09-0P**,
N-[2-[2-[4-Amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-N-methylmorpholine-4-carboxamide **437383-10-3P**
437383-11-4P 437383-12-5P 437383-13-6P
437383-14-7P 437383-15-8P 437383-16-9P
437383-17-0P 437383-18-1P 437383-19-2P
437383-20-5P 437383-21-6P 437383-22-7P
437383-23-8P 437383-24-9P 437383-40-9P
437383-41-0P 437383-42-1P 437383-43-2P
437383-44-3P 437383-45-4P 437383-46-5P
437383-47-6P 557787-30-1P 557787-31-2P
557787-32-3P 557787-33-4P 557787-34-5P
557787-35-6P 557787-36-7P 557787-37-8P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of aminoureidoethoxyethylimidazoquinolines as inducers of cytokine biosynthesis for treatment of viral and neoplastic disease)

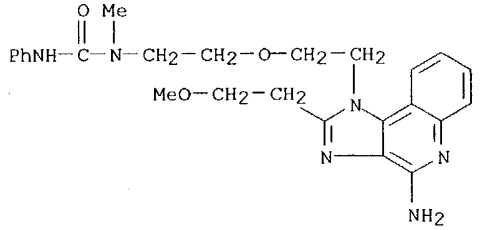
RN 437383-04-5 CAPLUS
CN Urea, N-[2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-N'-phenyl- (9CI) (CA INDEX NAME)



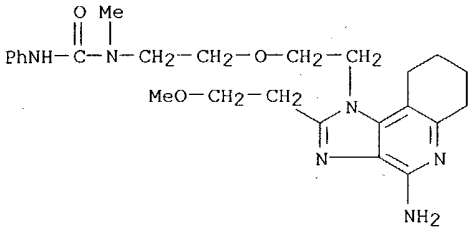
RN 437383-05-6 CAPLUS
CN Urea, N-[2-[2-[4-amino-6,7,8,9-tetrahydro-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-N'-phenyl- (9CI) (CA INDEX NAME)



RN 437383-06-7 CAPLUS
CN Urea, N-[2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-N-methyl-N'-phenyl- (9CI) (CA INDEX NAME)



RN 437383-07-8 CAPLUS
CN Urea, N-[2-[2-[4-amino-6,7,8,9-tetrahydro-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-N-methyl-N'-phenyl- (9CI) (CA INDEX NAME)



RN 437383-08-9 CAPLUS
CN 4-Morpholinecarboxamide, N-[2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]- (9CI) (CA INDEX NAME)

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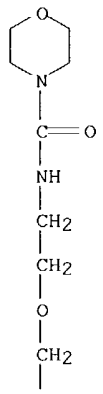

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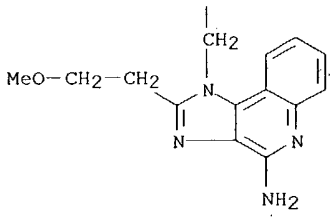

RN 437383-09-0 CAPLUS
CN 4-Morpholinecarboxamide, N-[2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-N-methyl- (9CI) (CA INDEX NAME)

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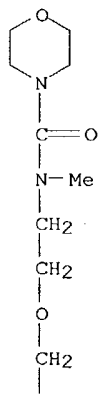

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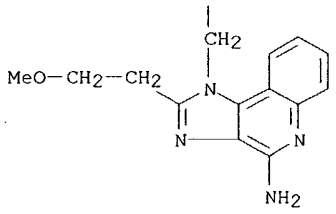
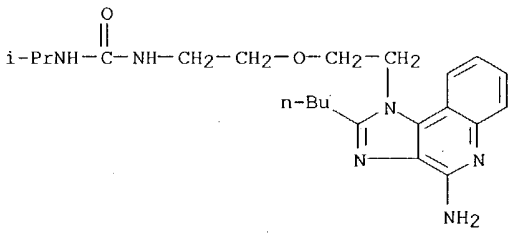
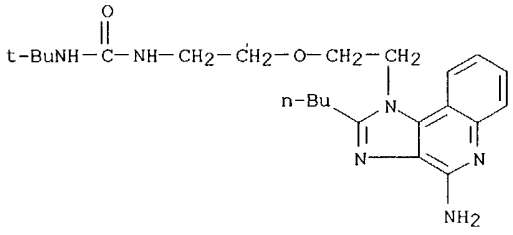


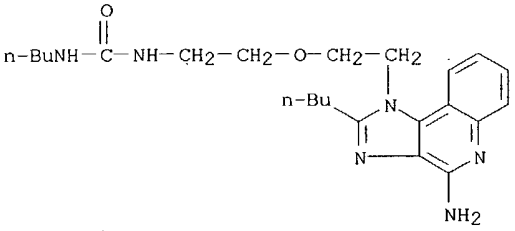
RN 437383-10-3 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-(1-methylethyl)- (9CI) (CA INDEX NAME)



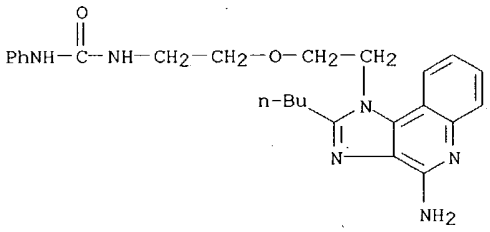
RN 437383-11-4 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



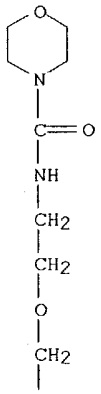
RN 437383-12-5 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-butyl- (9CI) (CA INDEX NAME)



RN 437383-13-6 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-phenyl- (9CI) (CA INDEX NAME)



RN 437383-14-7 CAPLUS
CN 4-Morpholinecarboxamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)



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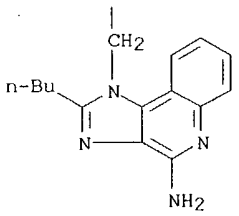

RN 437383-15-8 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-cyclohexyl- (9CI) (CA INDEX NAME)

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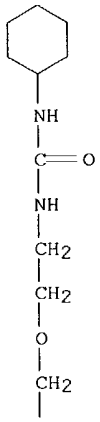

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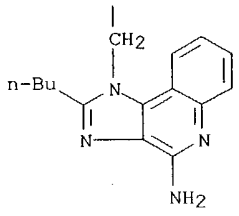

RN 437383-16-9 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-(3-cyanophenyl)- (9CI) (CA INDEX NAME)

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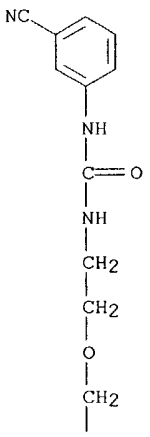

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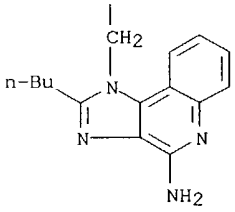

RN 437383-17-0 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-(3-methoxyphenyl)- (9CI) (CA INDEX NAME)

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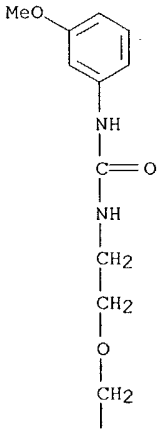

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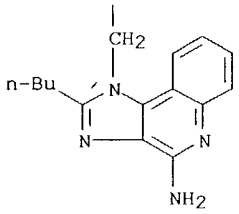
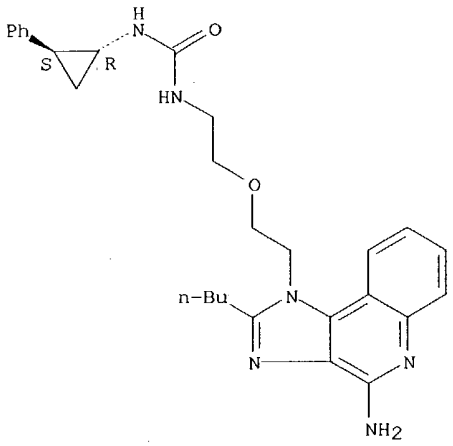


RN 437383-18-1 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-[(1R,2S)-2-phenylcyclopropyl]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 437383-19-2 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-[4-(dimethylamino)phenyl]- (9CI) (CA INDEX NAME)

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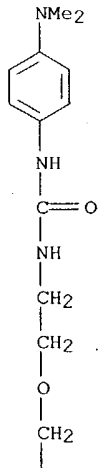

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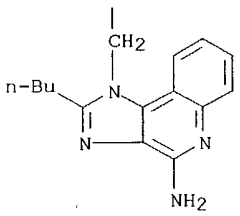

RN 437383-20-5 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-[3-(methylthio)phenyl]- (9CI) (CA INDEX NAME)

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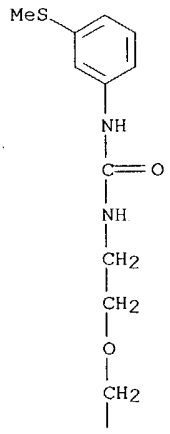

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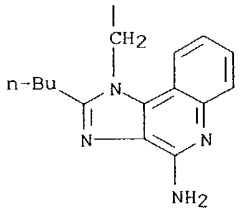

RN 437383-21-6 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-(2,4-dimethoxyphenyl)- (9CI) (CA INDEX NAME)

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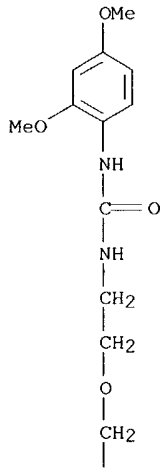

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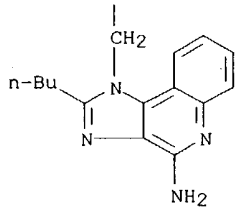
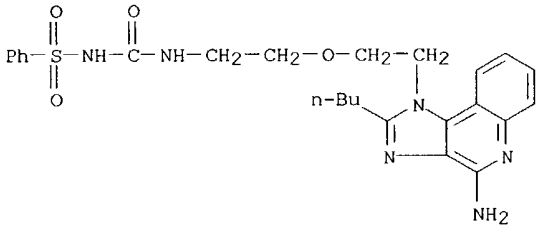


RN 437383-22-7 CAPLUS
CN Benzenesulfonamide, N-[[[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)



RN 437383-23-8 CAPLUS
CN Benzenesulfonamide, N-[[[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]amino]carbonyl]-4-methyl- (9CI) (CA INDEX NAME)

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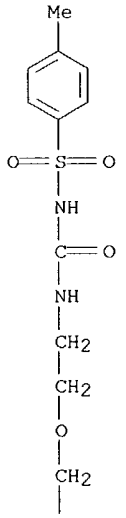

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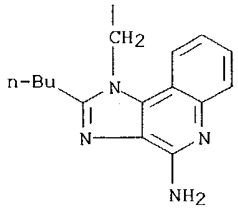

RN 437383-24-9 CAPLUS
CN Benzenesulfonamide, N-[[[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]amino]carbonyl]-4-chloro- (9CI) (CA INDEX NAME)

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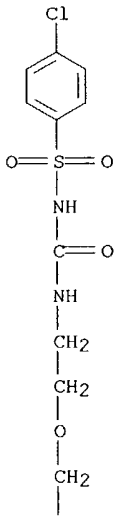
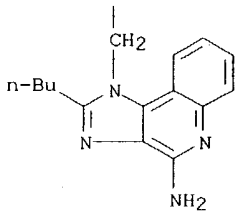
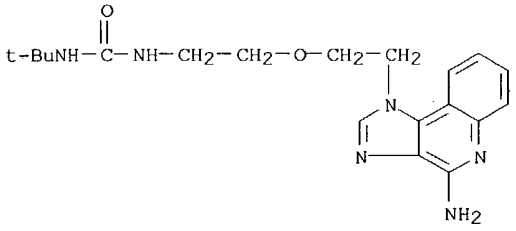
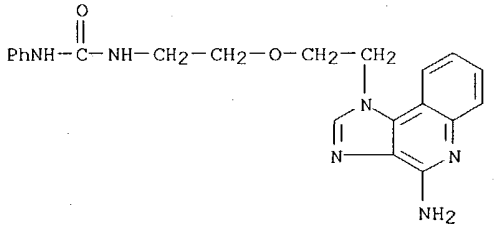




RN 437383-40-9 CAPLUS
CN Urea, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



RN 437383-41-0 CAPLUS
CN Urea, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-phenyl- (9CI) (CA INDEX NAME)



RN 437383-42-1 CAPLUS
CN Urea, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-cyclohexyl- (9CI) (CA INDEX NAME)

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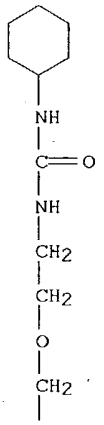

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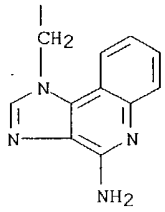

RN 437383-43-2 CAPLUS
CN Urea, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-(3-cyanophenyl)- (9CI) (CA INDEX NAME)

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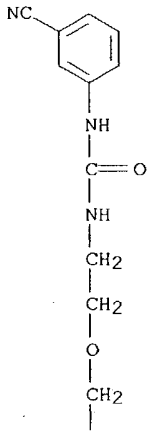

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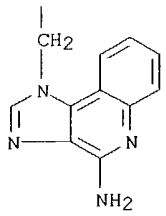

RN 437383-44-3 CAPLUS
CN Urea, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-(3-methoxyphenyl)- (9CI) (CA INDEX NAME)

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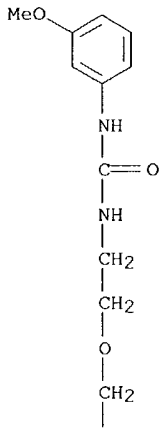

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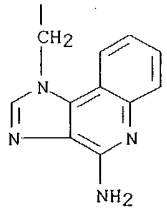
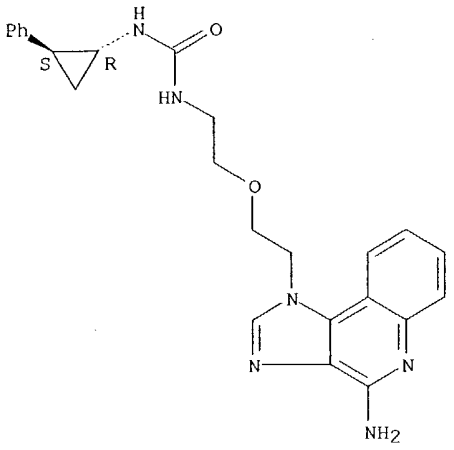


RN 437383-45-4 CAPLUS
CN Urea, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-[(1R,2S)-2-phenylcyclopropyl]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 437383-46-5 CAPLUS
CN Urea, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-(2,4-dimethoxyphenyl)- (9CI) (CA INDEX NAME)

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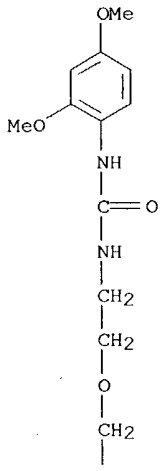

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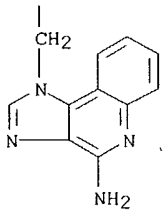
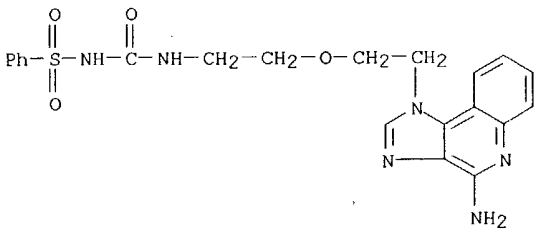


RN 437383-47-6 CAPLUS
CN Benzenesulfonamide, N-[[[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)



RN 557787-30-1 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-methyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-cyclohexyl- (9CI) (CA INDEX NAME)

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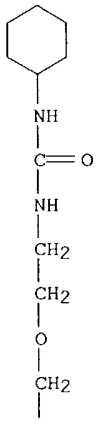

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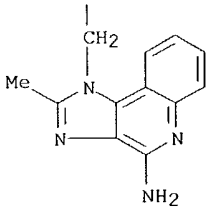
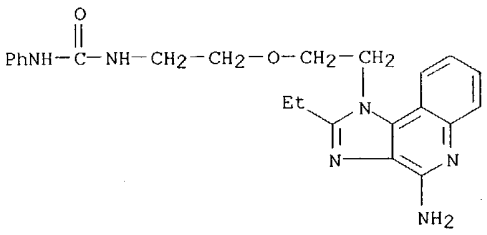
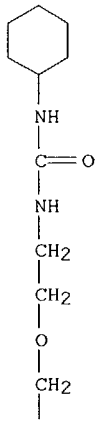


RN 557787-31-2 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-ethyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-phenyl- (9CI) (CA INDEX NAME)



RN 557787-32-3 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-ethyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-cyclohexyl- (9CI) (CA INDEX NAME)

PAGE 1-A



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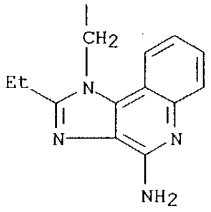
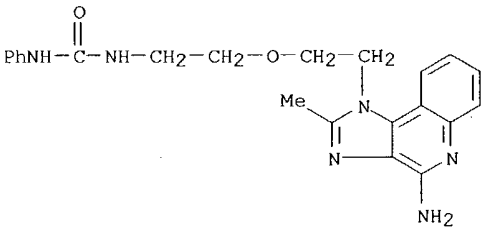


RN 557787-33-4 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-methyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-phenyl- (9CI) (CA INDEX NAME)



RN 557787-34-5 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-ethyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-4-morpholinyl- (9CI) (CA INDEX NAME)

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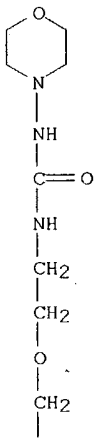

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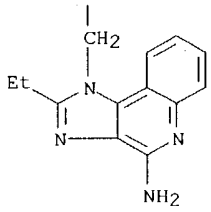
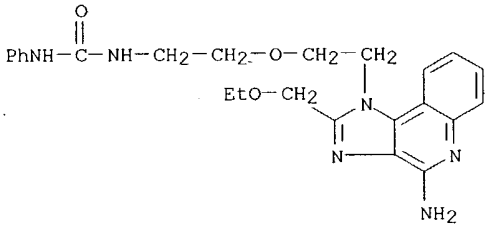


RN 557787-35-6 CAPLUS
CN Urea, N-[2-[2-[4-amino-2-(ethoxymethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-N'-phenyl- (9CI) (CA INDEX NAME)



RN 557787-36-7 CAPLUS
CN Urea, N-[2-[2-[4-amino-2-(ethoxymethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-N'-cyclohexyl- (9CI) (CA INDEX NAME)

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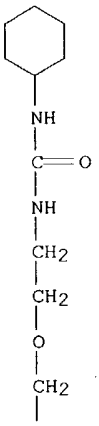

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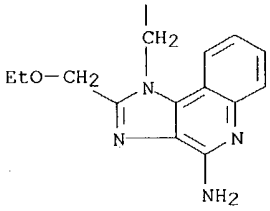

RN 557787-37-8 CAPLUS
CN 4-Morpholinecarboxamide, N-[2-[2-[4-amino-2-(ethoxymethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]- (9CI) (CA INDEX NAME)

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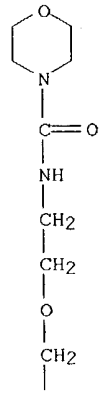
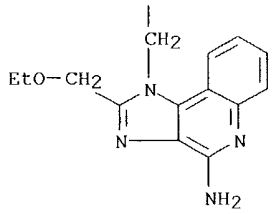
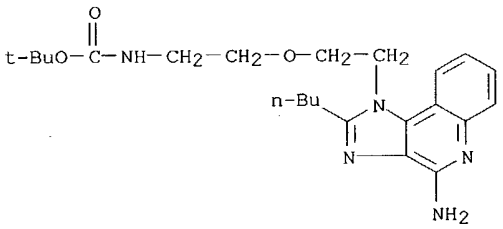


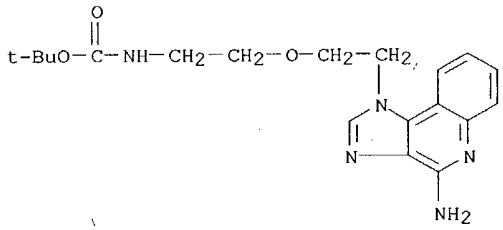


IT **436856-84-7P 436856-92-7P 436856-98-3P 436857-12-4P 557787-40-3P 557787-44-7P 557787-47-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of aminoureidoethoxyethylimidazoquinolines as inducers of cytokine biosynthesis for treatment of viral and neoplastic disease)

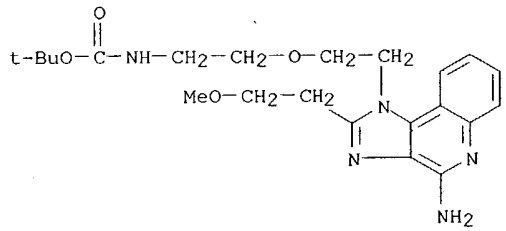
RN 436856-84-7 CAPLUS
CN Carbamic acid, [2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



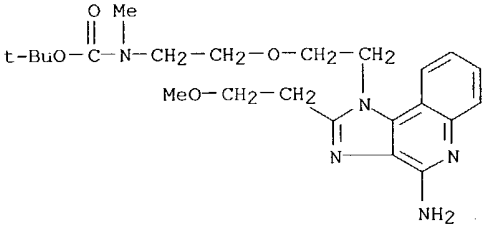
RN 436856-92-7 CAPLUS
CN Carbamic acid, [2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



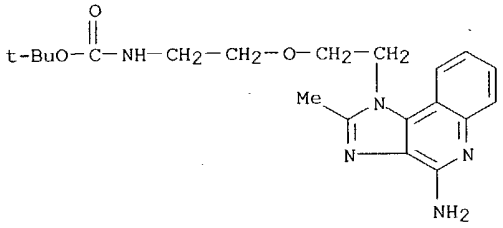
RN 436856-98-3 CAPLUS
CN Carbamic acid, [2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



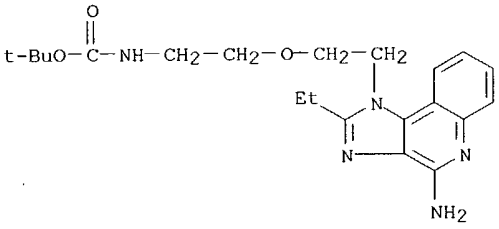
RN 436857-12-4 CAPLUS
CN Carbamic acid, [2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]methyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



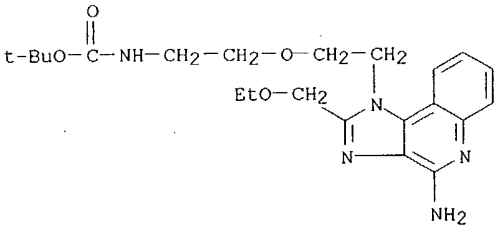
RN 557787-40-3 CAPLUS
CN Carbamic acid, [2-[2-(4-amino-2-methyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 557787-44-7 CAPLUS
CN Carbamic acid, [2-[2-(4-amino-2-ethyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 557787-47-0 CAPLUS
CN Carbamic acid, [2-[2-[4-amino-2-(ethoxymethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:449682 CAPLUS
DN 137:33298

10681457

TI Preparation of urea substituted imidazoquinoline ethers as immune response modifiers

IN Crooks, Stephen L.; Griesgraber, George W.; Heppner, Philip D.; Merrill, Bryon A.

PA 3M Innovative Properties Company, USA

SO PCT Int. Appl., 71 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 11

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002046191	A2	20020613	WO 2001-US46696	20011206
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OS MARPAT 137:33298

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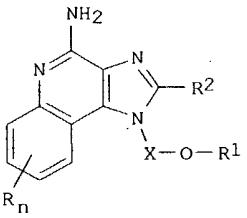

I

AB The title compds. [I; X = (CH2)2, CHEtCH2, etc.; R1 = R4NR8CR3NR5ZR6alkyl, R4NR8CR3NR5ZR6aryl, etc.; R2 = H, alkyl, aryl, etc.; R3 = O, S; R4 = alkylene or alkenylene which may be interrupted by one or more O atoms; R5 = H, alkyl; R6 = a bond, alkylene or alkenylene which may be interrupted by one or more O atoms; R8 = H, alkyl, aralkyl; or R4 and R8 can join together to form a ring; Z = a bond, CO, SO2; n = 0-4; R = alkyl, alkoxy, OH, etc.] that contain ether and urea functionality at the 1-position, and are useful as immune response modifiers, were prepared E.g., a multi-step synthesis of the urea I [X = (CH2)2; R1 = (CH2)2NMeCONHPh; R2 = (CH2)2OMe; n = 0] which showed the lowest concentration of 0.01 μM and 0.37 μM to induce interferon α and TNFα, resp., was prepared The compds. I can induce the biosynthesis of various cytokines and are useful in the treatment of a variety of conditions including viral diseases and neoplastic diseases.

IT **437383-04-5P 437383-05-6P 437383-06-7P**
437383-07-8P 437383-08-9P 437383-09-0P
437383-10-3P 437383-11-4P 437383-12-5P
437383-13-6P 437383-14-7P 437383-15-8P
437383-16-9P 437383-17-0P 437383-18-1P

437383-19-2P 437383-20-5P 437383-21-6P
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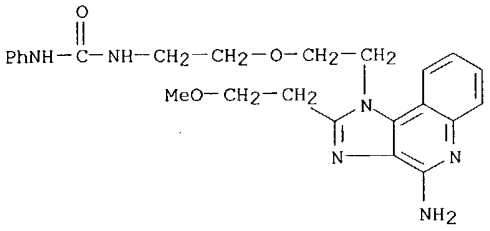
437383-40-9P 437383-41-0P 437383-42-1P
437383-43-2P 437383-44-3P 437383-45-4P
437383-46-5P 437383-47-6P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of urea substituted imidazoquinoline ethers as immune response modifiers)

RN 437383-04-5 CAPLUS
CN Urea, N-[2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-N'-phenyl- (9CI) (CA INDEX NAME)



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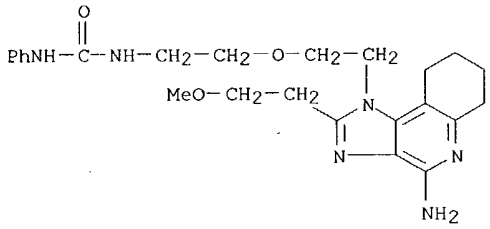
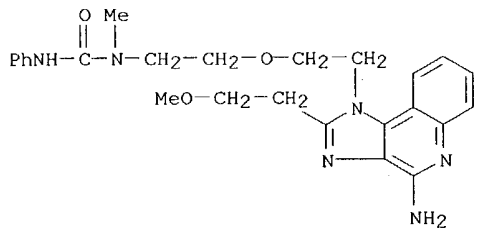
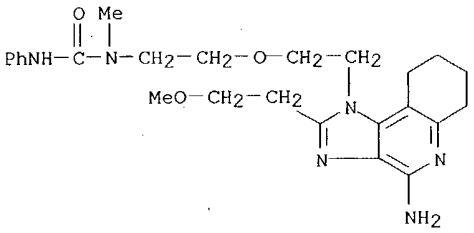
CN Urea, N-[2-[2-[4-amino-6,7,8,9-tetrahydro-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-N'-phenyl- (9CI) (CA INDEX NAME)



RN 437383-06-7 CAPLUS
CN Urea, N-[2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-N-methyl-N'-phenyl- (9CI) (CA INDEX NAME)



RN 437383-07-8 CAPLUS
CN Urea, N-[2-[2-[4-amino-6,7,8,9-tetrahydro-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-N-methyl-N'-phenyl- (9CI) (CA INDEX NAME)



RN 437383-08-9 CAPLUS
CN 4-Morpholinecarboxamide, N-[2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]- (9CI) (CA INDEX NAME)

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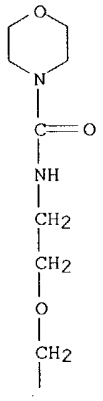

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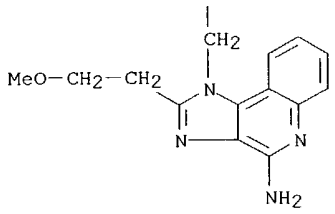

RN 437383-09-0 CAPLUS
CN 4-Morpholinecarboxamide, N-[2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-N-methyl- (9CI) (CA INDEX NAME)

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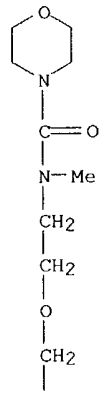

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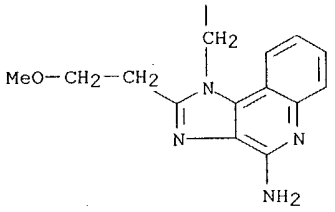
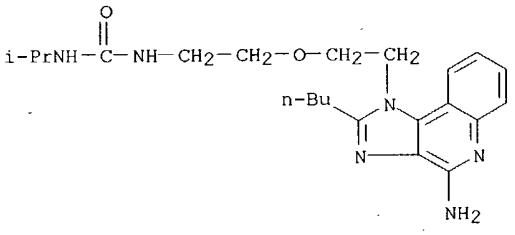
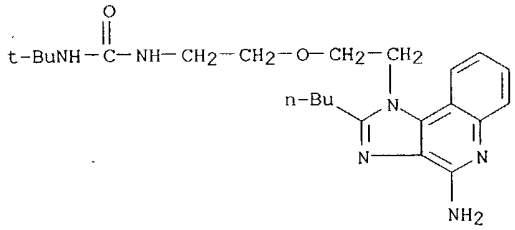


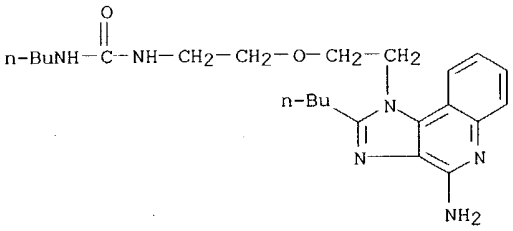
RN 437383-10-3 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-(1-methylethyl)- (9CI). (CA INDEX NAME)



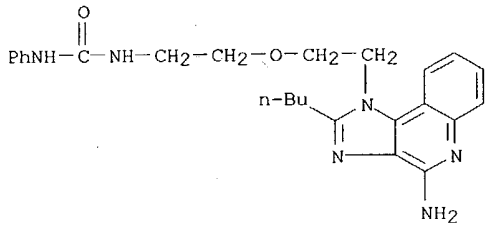
RN 437383-11-4 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



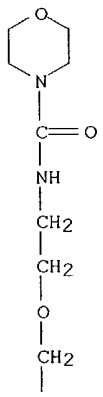
RN 437383-12-5 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-butyl- (9CI) (CA INDEX NAME)



RN 437383-13-6 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-phenyl- (9CI) (CA INDEX NAME)



RN 437383-14-7 CAPLUS
CN 4-Morpholinecarboxamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)



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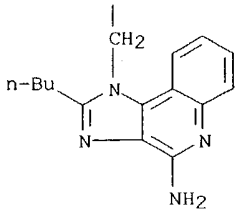

RN 437383-15-8 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-cyclohexyl- (9CI) (CA INDEX NAME)

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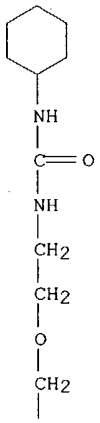
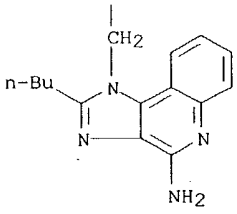
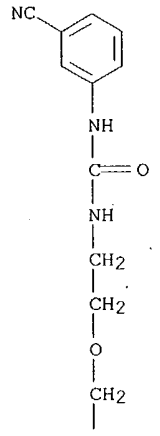


PAGE 2-A



RN 437383-16-9 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-(3-cyanophenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



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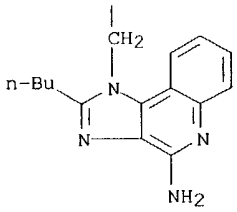
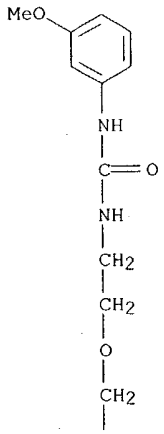


RN 437383-17-0 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-(3-methoxyphenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



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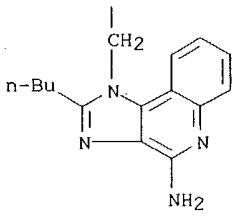
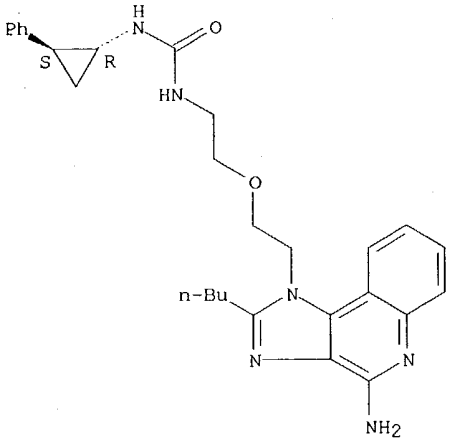


RN 437383-18-1 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-[(1R,2S)-2-phenylcyclopropyl]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 437383-19-2 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-[4-(dimethylamino)phenyl]- (9CI) (CA INDEX NAME)

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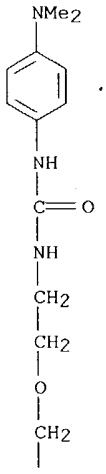

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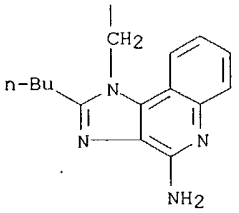

RN 437383-20-5 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-[3-(methylthio)phenyl]- (9CI) (CA INDEX NAME)

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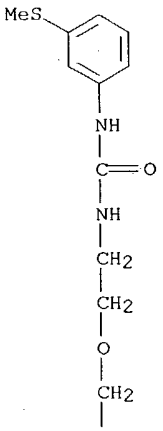

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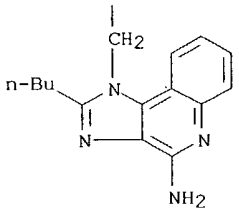

RN 437383-21-6 CAPLUS
CN Urea, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-(2,4-dimethoxyphenyl)- (9CI) (CA INDEX NAME)

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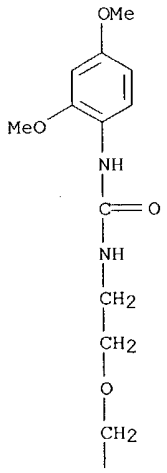

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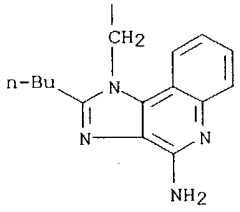
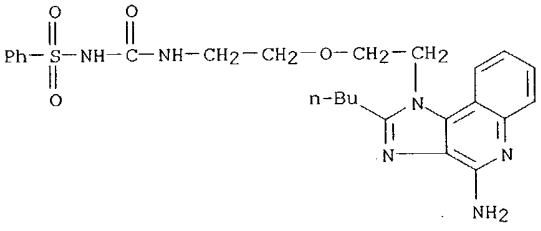


RN 437383-22-7 CAPLUS
CN Benzenesulfonamide, N-[[[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)



RN 437383-23-8 CAPLUS
CN Benzenesulfonamide, N-[[[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]amino]carbonyl]-4-methyl- (9CI) (CA INDEX NAME)

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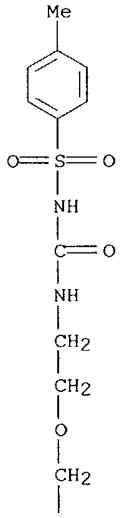

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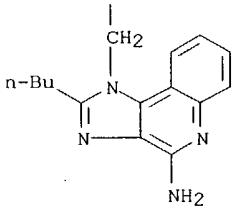

RN 437383-24-9 CAPLUS
CN Benzenesulfonamide, N-[[[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]amino]carbonyl]-4-chloro- (9CI) (CA INDEX NAME)

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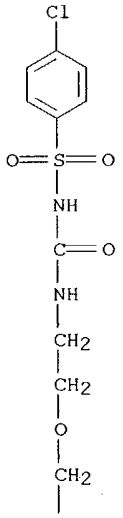
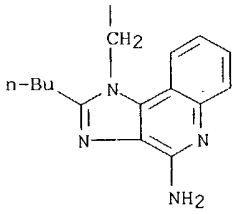
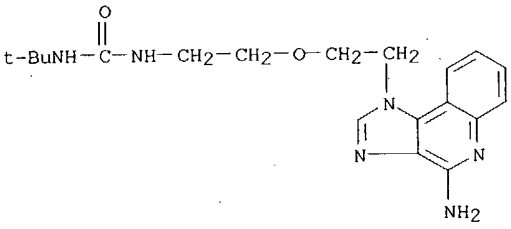
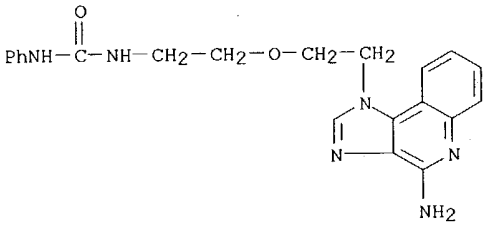




RN 437383-40-9 CAPLUS
CN Urea, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



RN 437383-41-0 CAPLUS
CN Urea, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-phenyl- (9CI) (CA INDEX NAME)



RN 437383-42-1 CAPLUS
CN Urea, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-cyclohexyl- (9CI) (CA INDEX NAME)

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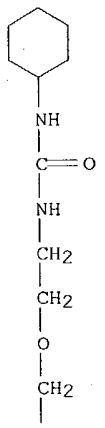

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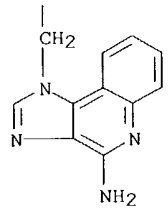

RN 437383-43-2 CAPLUS
CN Urea, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-(3-cyanophenyl)- (9CI) (CA INDEX NAME)

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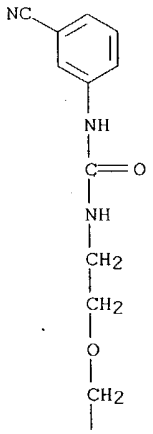

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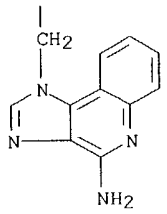

RN 437383-44-3 CAPLUS
CN Urea, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-(3-methoxyphenyl)- (9CI) (CA INDEX NAME)

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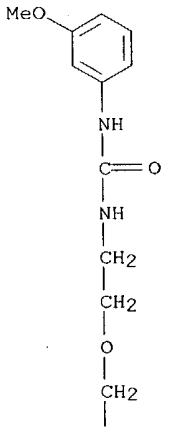

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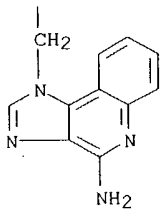
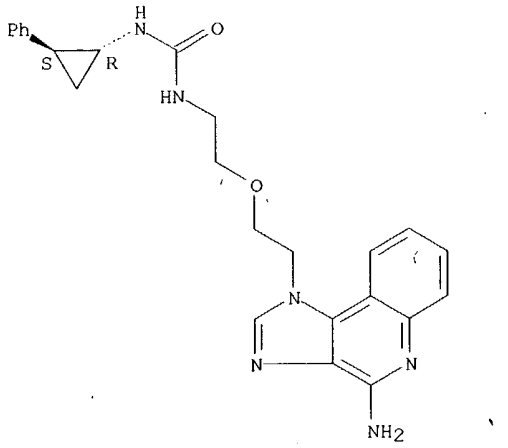


RN 437383-45-4 CAPLUS
CN Urea, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-[(1R,2S)-2-phenylcyclopropyl]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 437383-46-5 CAPLUS
CN Urea, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-N'-(2,4-dimethoxyphenyl)- (9CI) (CA INDEX NAME)

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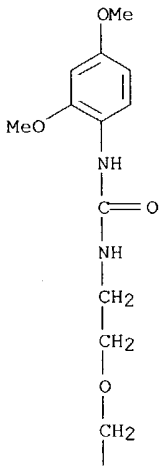

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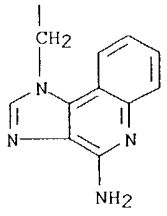
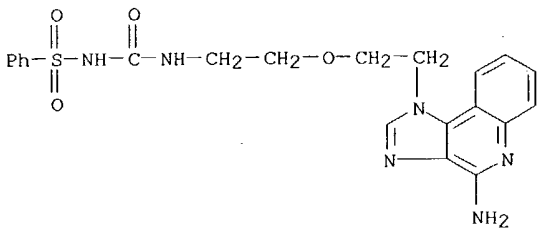
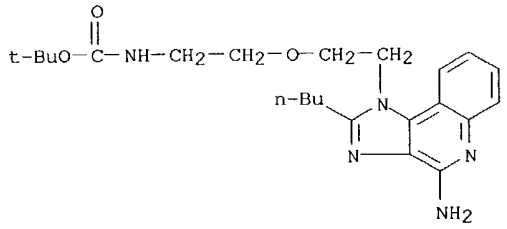


RN 437383-47-6 CAPLUS
CN Benzenesulfonamide, N-[[[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

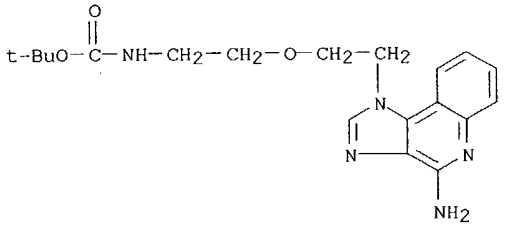


IT **436856-84-7P 436856-92-7P 436856-98-3P**
436857-12-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of urea substituted imidazoquinoline ethers as immune response modifiers)

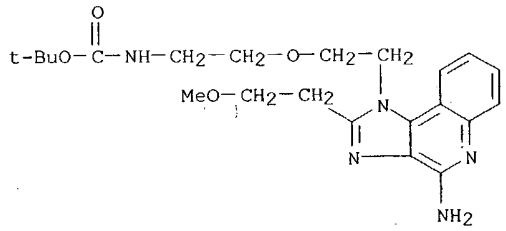
RN 436856-84-7 CAPLUS
CN Carbamic acid, [2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



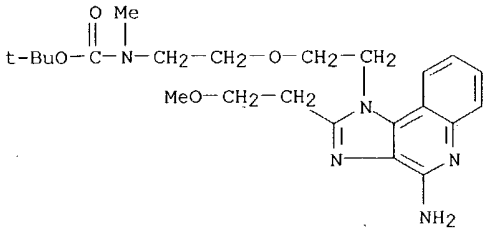
RN 436856-92-7 CAPLUS
CN Carbamic acid, [2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 436856-98-3 CAPLUS
CN Carbamic acid, [2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 436857-12-4 CAPLUS
CN Carbamic acid, [2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]methyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:449681 CAPLUS
DN 137:33297
TI Preparation of sulfonamido ether substituted imidazoquinolines as immune response modifiers
IN Crooks, Stephen L.; Greisgraber, George W.; Heppner, Philip D.; Merrill, Bryon A.; Roberts, Ralph R.; Wei, Ai-Ping
PA 3M Innovative Properties Company, USA
SO PCT Int. Appl., 74 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 11

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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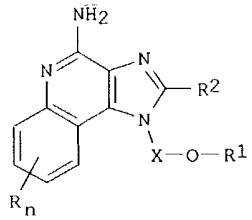
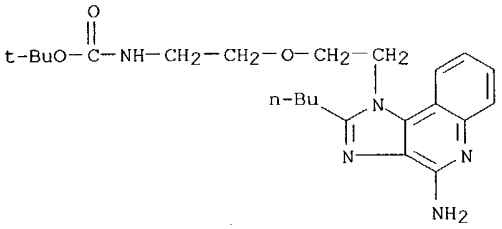


I

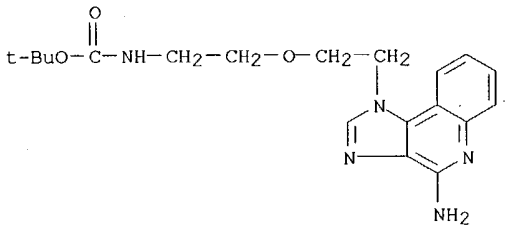
AB The title compds. [I; X = (CH2)2, (CH2)3, CHEtCH2, etc.; R1 = R4NR3SO2R6alkyl, R4NR3SO2R6aryl, etc.; R2 = H, alkyl, alkenyl, etc.; R3 = H, alkyl, aralkyl; R4 = alkylene or alkenylene interrupted by one or more O atoms; or R3R4 can join together to form a ring; R6 = a bond, alkylene or alkenylene which may be interrupted by one or more O atoms; n = 0-4; R = alkyl, alkoxy, OH, etc.] that contain substituted amine functionality at the 1-position, and are useful as immune response modifiers, were prepared E.g., a multi-step synthesis of I [X = (CH2)2; R1 = (CH2)2NMeSO2Me; R2 = (CH2)2OMe; n = 0] which showed the lowest concentration of 0.01 μM and 0.12 μM to induce interferon α and TNFα, resp., was given. The compds. I can induce the biosynthesis of various cytokines and are useful in the treatment of a variety of conditions including viral diseases and neoplastic diseases.

IT **436856-84-7P 436856-92-7P 436856-98-3P 436857-12-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of sulfonamido ether substituted imidazoquinolines as immune response modifiers)

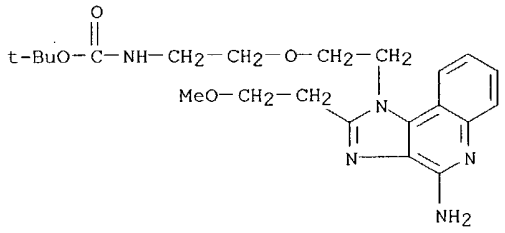
RN 436856-84-7 CAPLUS
CN Carbamic acid, [2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



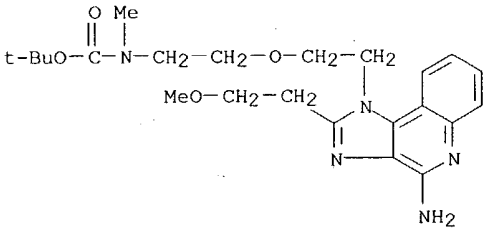
RN 436856-92-7 CAPLUS
CN Carbamic acid, [2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 436856-98-3 CAPLUS
CN Carbamic acid, [2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 436857-12-4 CAPLUS
CN Carbamic acid, [2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]methyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:449680 CAPLUS
DN 137:33296
TI Preparation of aryl ether substituted imidazoquinolines as immune response modifiers
IN Charles, Leslie J.; Dellaria, Joseph F.; Heppner, Philip D.; Merrill, Bryon A.; Mickelson, John W.
PA 3M Innovative Properties Company, USA
SO PCT Int. Appl., 184 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 11

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002046189	A2	20020613	WO 2001-US46581	20011206
	WO 2002046189	A3	20030320		
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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2002039516	A5	20020618	AU 2002-39516	20011206
	US 2003065005	A1	20030403	US 2001-11921	20011206
	US 6664260	B2	20031216		
	EP 1341789	A2	20030910	EP 2001-987282	20011206
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	JP 2004523498	T2	20040805	JP 2002-547926	20011206
	NO 2003002452	A	20030716	NO 2003-2452	20030528
	US 2004072858	A1	20040415	US 2003-675833	20030930
PRAI	US 2000-254218P	P	20001208		
	US 2001-11921	A1	20011206		
	WO 2001-US46581	W	20011206		

OS MARPAT 137:33296
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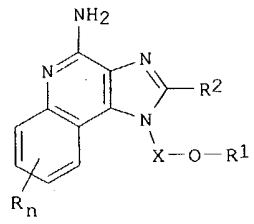

I

10681457

AB The title compds. [I; X = (CH2)2, CHEtCH2, etc.; R1 = alkenyl, aryl, R4-aryl; R2 = H, alkyl, alkenyl, etc.; R4 = alkyl, alkenyl which may be interrupted by one or more O atoms; R3 = H, alkyl; n = 0-4; R = alkyl, alkoxy, OH, etc.] that contain ether and aryl or alkenyl functionality at the 1-position, and are useful as immune response modifiers, were prepared E.g., a multi-step synthesis of I [X = (CH2)2; R1 = CH2C.tplbond.CH; R2 = H; n = 0] which showed the lowest concentration of 0.12 μM and 1.11 μM to induce interferon α and TNFα, resp., was given. The compds. I can induce the biosynthesis of various cytokines and are useful in the treatment of a variety of conditions including viral diseases and neoplastic diseases.

IT **437601-48-4P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of aryl ether substituted imidazoquinolines as immune response modifiers)

RN 437601-48-4 CAPLUS

CN Acetic acid, [2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)butoxy]-, methyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 436855-99-1
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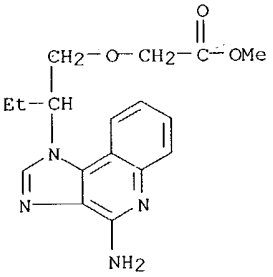

CM 2

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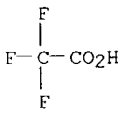

L4 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:449679 CAPLUS
DN 137:33295
TI Preparation of amido ether substituted imidazoquinolines as immune response modifiers
IN Crooks, Stephen L.; Griesgraber, George W.; Heppner, Philip D.; Merrill, Bryon A.
PA 3M Innovative Properties Company, USA
SO PCT Int. Appl., 79 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 11

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002046188	A2	20020613	WO 2001-US46359	20011206
	WO 2002046188	A3	20030313		

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FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,
KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK,
SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM,
AZ, BY, KG, KZ
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2002032482	A5	20020618	AU 2002-32482	20011206
US 2003065005	A1	20030403	US 2001-11921	20011206
US 6664260	B2	20031216		
EP 1341792	A2	20030910	EP 2001-992005	20011206
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
EE 200300268	A	20031015	EE 2003-268	20011206
NO 2003002451	A	20030716	NO 2003-2451	20030528
US 2004072858	A1	20040415	US 2003-675833	20030930
PRAI US 2000-254218P	P	20001208		
US 2001-11921	A1	20011206		
WO 2001-US46359	W	20011206		

OS MARPAT 137:33295

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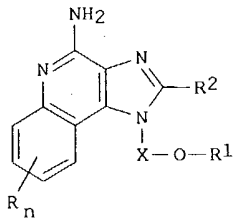


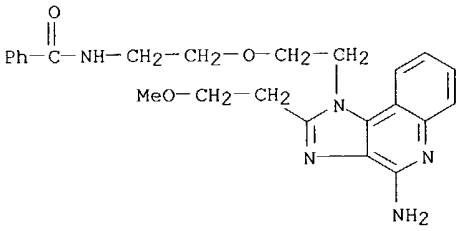
I

AB The title compds. [I; X = (CH2)2, CH(Et)CH2, etc.; R1 = (CH2)4CONMePh, (CH2)2NHCO(cyclohexyl), (CH2)2NHCO(1-naphthyl), etc.; R2 = H, alkyl, alkenyl, etc.; R = alkyl, alkoxy, OH, halo, CF3; n = 0-4] and their pharmaceutically acceptable salts that contain ether and amide functionality at the 1-position, and are useful as immune response modifiers, were prepared Thus, reacting 2-(1H-imidazo[4,5-c]quinolin-1-yl)ethanol with 5-bromo-N-methyl-N-phenylpentamide followed by treatment of the resulting N-oxide product with trichloroacetyl isocyanate in CH2Cl2, and then treating the intermediate with NaOMe/MeOH afforded I [X = (CH2)2; R1 = (CH2)4CONMePh; R2 = H; n = 0] which showed interferon α induction at 3.33 μM. The compds. I can induce the biosynthesis of various cytokines, and are useful in the treatment of a variety of conditions, including viral diseases and neoplastic diseases.

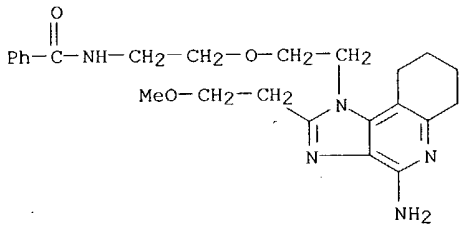
IT **436855-82-2P 436855-84-4P 436855-87-7P**
436855-91-3P 436855-95-7P 436855-97-9P
436855-99-1P 436856-00-7P 436856-01-8P
436856-02-9P 436856-03-0P 436856-04-1P
436856-05-2P 436856-06-3P 436856-07-4P
436856-08-5P 436856-09-6P 436856-10-9P
436856-11-0P 436856-12-1P 436856-13-2P
436856-14-3P 436856-15-4P 436856-16-5P
436856-17-6P 436856-18-7P 436856-19-8P
436856-42-7P 436856-44-9P 436856-46-1P
436856-48-3P 436856-50-7P 436856-52-9P
436856-54-1P 436856-56-3P 436856-58-5P
436856-60-9P 436856-62-1P 436856-64-3P
436856-66-5P 436856-68-7P 436856-70-1P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of amido ether substituted imidazoquinolines as immune response modifiers)

RN 436855-82-2 CAPLUS

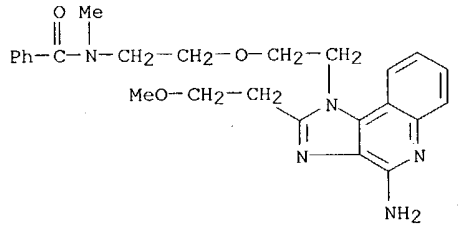
CN Benzamide, N-[2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]- (9CI) (CA INDEX NAME)



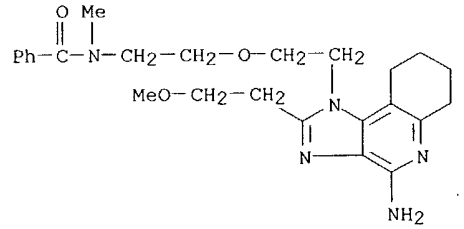
RN 436855-84-4 CAPLUS
CN Benzamide, N-[2-[2-[4-amino-6,7,8,9-tetrahydro-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]- (9CI) (CA INDEX NAME)



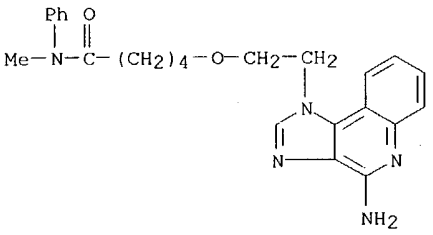
RN 436855-87-7 CAPLUS
CN Benzamide, N-[2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-N-methyl- (9CI) (CA INDEX NAME)



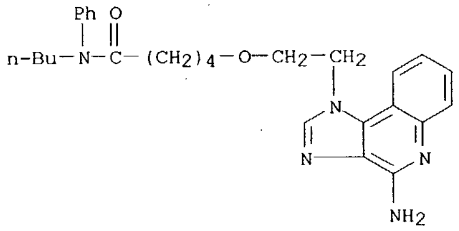
RN 436855-91-3 CAPLUS
CN Benzamide, N-[2-[2-[4-amino-6,7,8,9-tetrahydro-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-N-methyl- (9CI) (CA INDEX NAME)



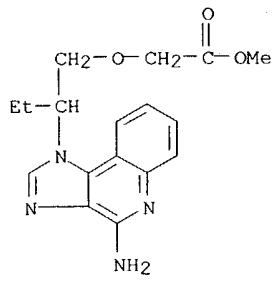
RN 436855-95-7 CAPLUS
CN Pentanamide, 5-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]-N-methyl-N-phenyl- (9CI) (CA INDEX NAME)



RN 436855-97-9 CAPLUS
CN Pentanamide, 5-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]-N-butyl-N-phenyl- (9CI) (CA INDEX NAME)

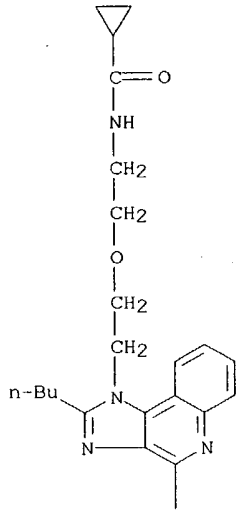


RN 436855-99-1 CAPLUS
CN Acetic acid, [2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)butoxy]-, methyl ester (9CI) (CA INDEX NAME)



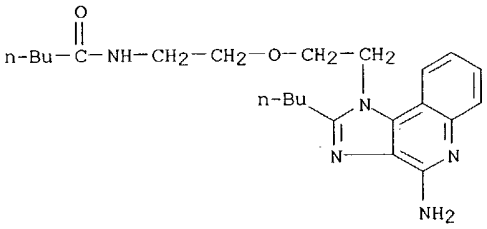
RN 436856-00-7 CAPLUS
CN Cyclopropanecarboxamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



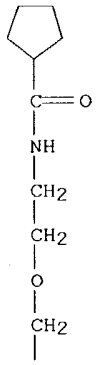
PAGE 2-A

RN 436856-01-8 CAPLUS
CN Pentanamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)



RN 436856-02-9 CAPLUS
CN Cyclopentanecarboxamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



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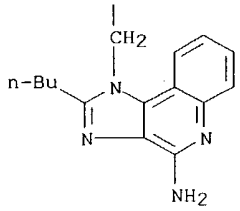
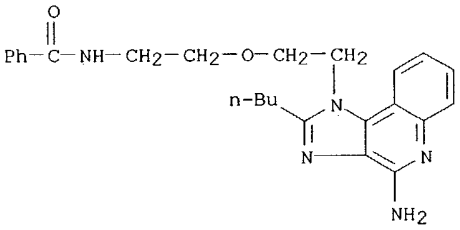
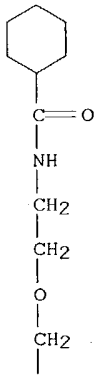


RN 436856-03-0 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)



RN 436856-04-1 CAPLUS
CN Cyclohexanecarboxamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



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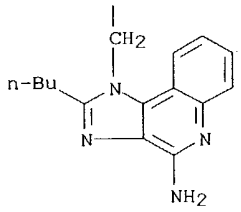
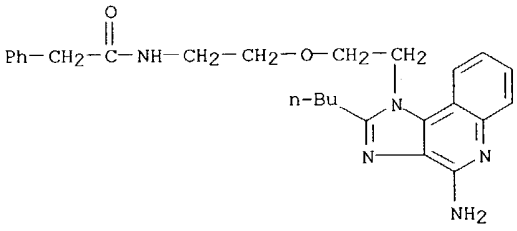
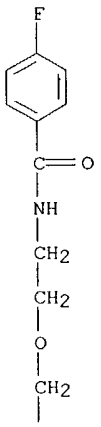


RN 436856-05-2 CAPLUS
CN Benzeneacetamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)



RN 436856-06-3 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-4-fluoro- (9CI) (CA INDEX NAME)

PAGE 1-A



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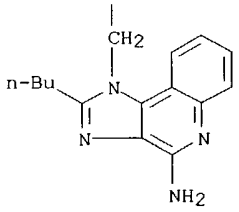
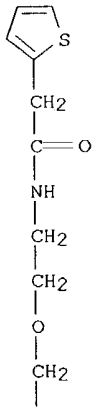


RN 436856-07-4 CAPLUS
CN 2-Thiopheneacetamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



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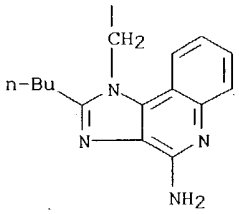
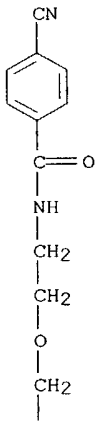


RN 436856-08-5 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-4-cyano- (9CI) (CA INDEX NAME)

PAGE 1-A



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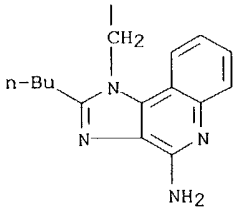
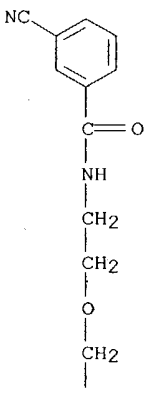


RN 436856-09-6 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-3-cyano- (9CI) (CA INDEX NAME)

PAGE 1-A



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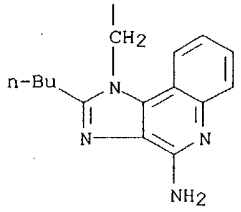
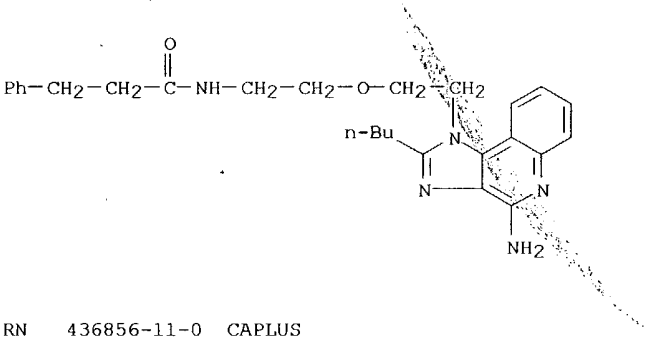
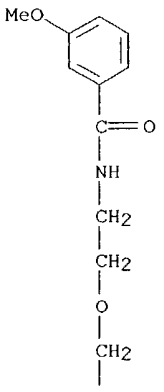


RN 436856-10-9 CAPLUS
CN Benzenepropanamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)



RN 436856-11-0 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-3-methoxy- (9CI) (CA INDEX NAME)

PAGE 1-A



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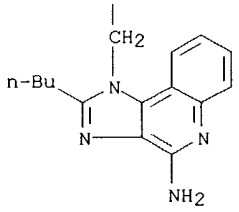

RN 436856-12-1 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-4-methoxy- (9CI) (CA INDEX NAME)

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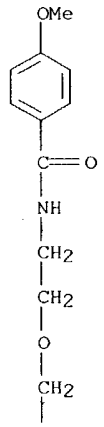

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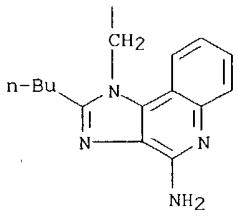

RN 436856-13-2 CAPLUS
CN 3-Pyridinecarboxamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-6-chloro- (9CI) (CA INDEX NAME)

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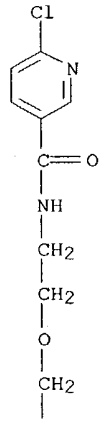

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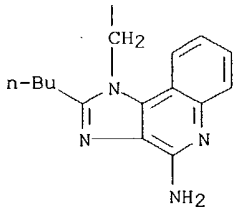
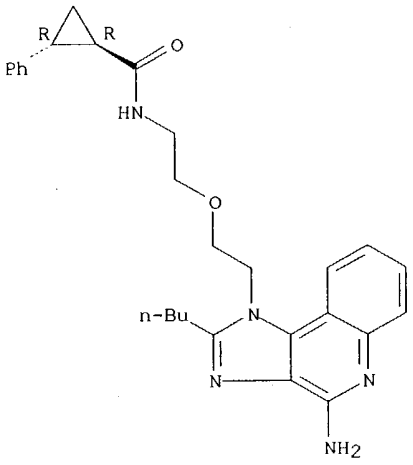
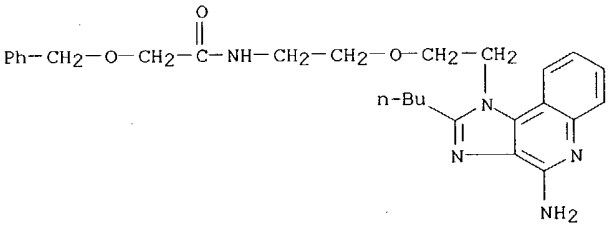


RN 436856-14-3 CAPLUS
CN Cyclopropanecarboxamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-2-phenyl-, (1R,2R)-rel- (9CI) (CA INDEX NAME)

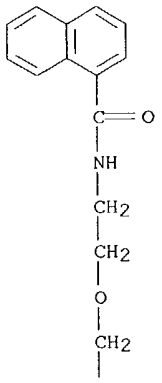
Relative stereochemistry.



RN 436856-15-4 CAPLUS
CN Acetamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-2-(phenylmethoxy)- (9CI) (CA INDEX NAME)



RN 436856-16-5 CAPLUS
CN 1-Naphthalenecarboxamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)



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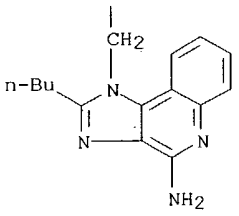

RN 436856-17-6 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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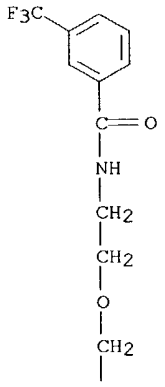

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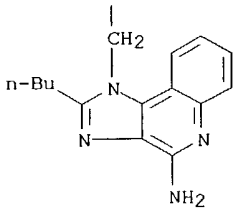

RN 436856-18-7 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-4-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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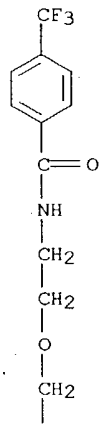

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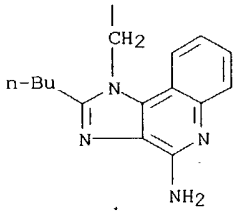

RN 436856-19-8 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-4-(trifluoromethoxy)- (9CI) (CA INDEX NAME)

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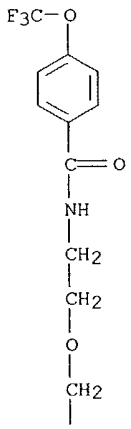
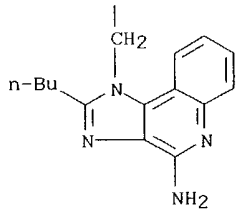
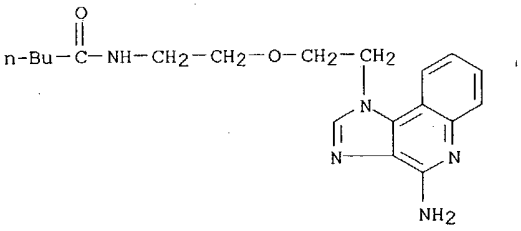
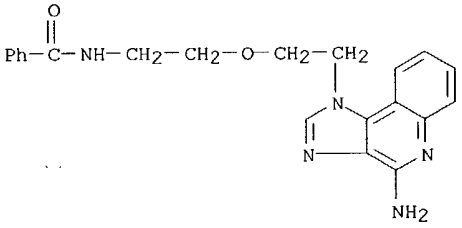




RN 436856-42-7 CAPLUS
CN Pentanamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)



RN 436856-44-9 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)



RN 436856-46-1 CAPLUS
CN Cyclohexanecarboxamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)

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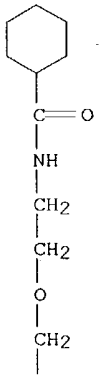

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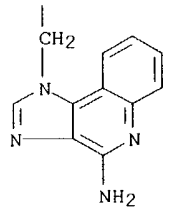
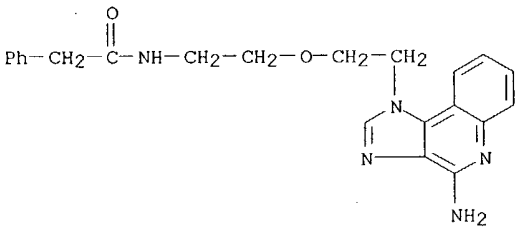


RN 436856-48-3 CAPLUS
CN Benzeneacetamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)



RN 436856-50-7 CAPLUS
CN 2-Thiopheneacetamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)

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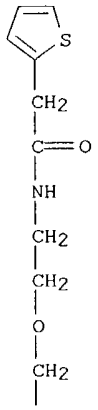

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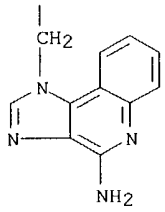

RN 436856-52-9 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-4-cyano- (9CI) (CA INDEX NAME)

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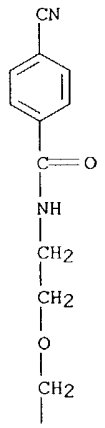

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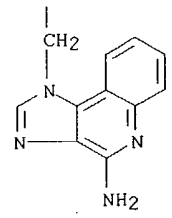
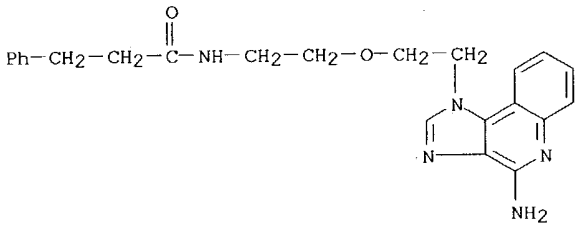


RN 436856-54-1 CAPLUS
CN Benzenepropanamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)



RN 436856-56-3 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-3-methoxy- (9CI) (CA INDEX NAME)

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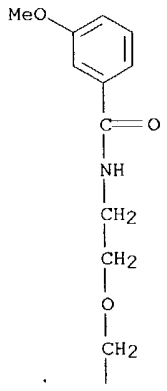

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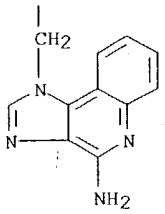

RN 436856-58-5 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-4-methoxy- (9CI) (CA INDEX NAME)

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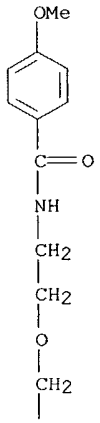

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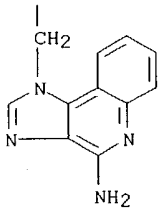

RN 436856-60-9 CAPLUS
CN 3-Pyridinecarboxamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-6-chloro- (9CI) (CA INDEX NAME)

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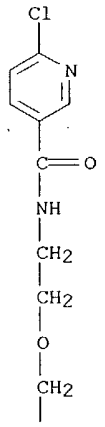

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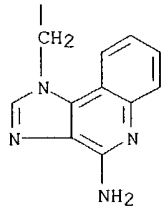
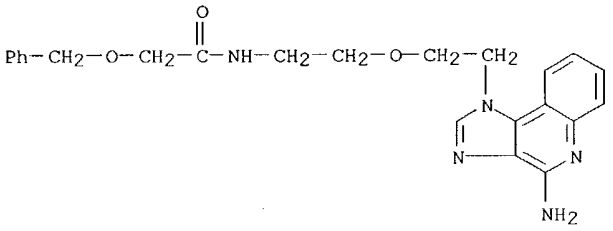
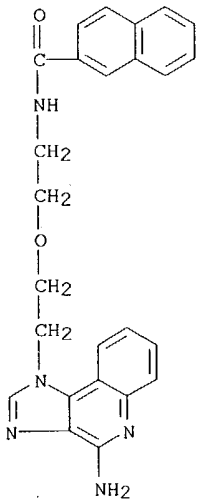


RN 436856-62-1 CAPLUS
CN Acetamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-2-(phenylmethoxy)- (9CI) (CA INDEX NAME)



RN 436856-64-3 CAPLUS
CN 2-Naphthalenecarboxamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]- (9CI) (CA INDEX NAME)



RN 436856-66-5 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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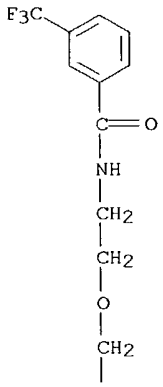

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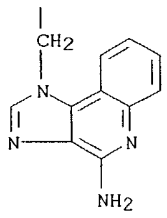

RN 436856-68-7 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-4-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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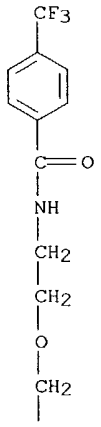

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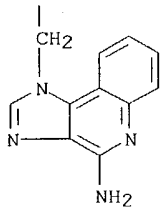

RN 436856-70-1 CAPLUS
CN Benzamide, N-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-4-(trifluoromethoxy)- (9CI) (CA INDEX NAME)

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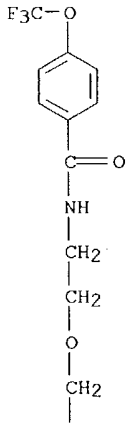
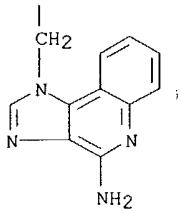
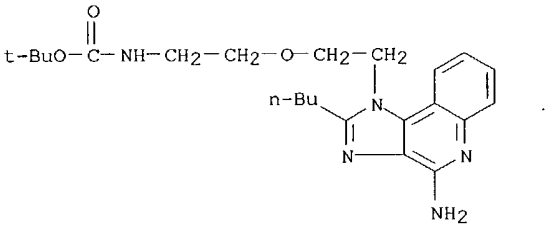


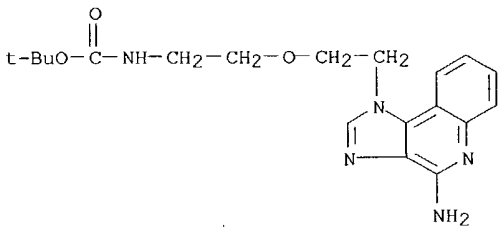


IT **436856-84-7P 436856-92-7P 436856-98-3P 436857-12-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of amido ether substituted imidazoquinolines as immune response modifiers)

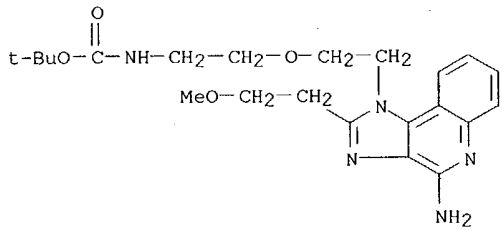
RN 436856-84-7 CAPLUS
CN Carbamic acid, [2-[2-(4-amino-2-butyl-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 436856-92-7 CAPLUS
CN Carbamic acid, [2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 436856-98-3 CAPLUS
CN Carbamic acid, [2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 436857-12-4 CAPLUS
CN Carbamic acid, [2-[2-[4-amino-2-(2-methoxyethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]ethyl]methyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)